DX ENGINEERING®

Amateur Radio Products
Autumn/Winter 2018

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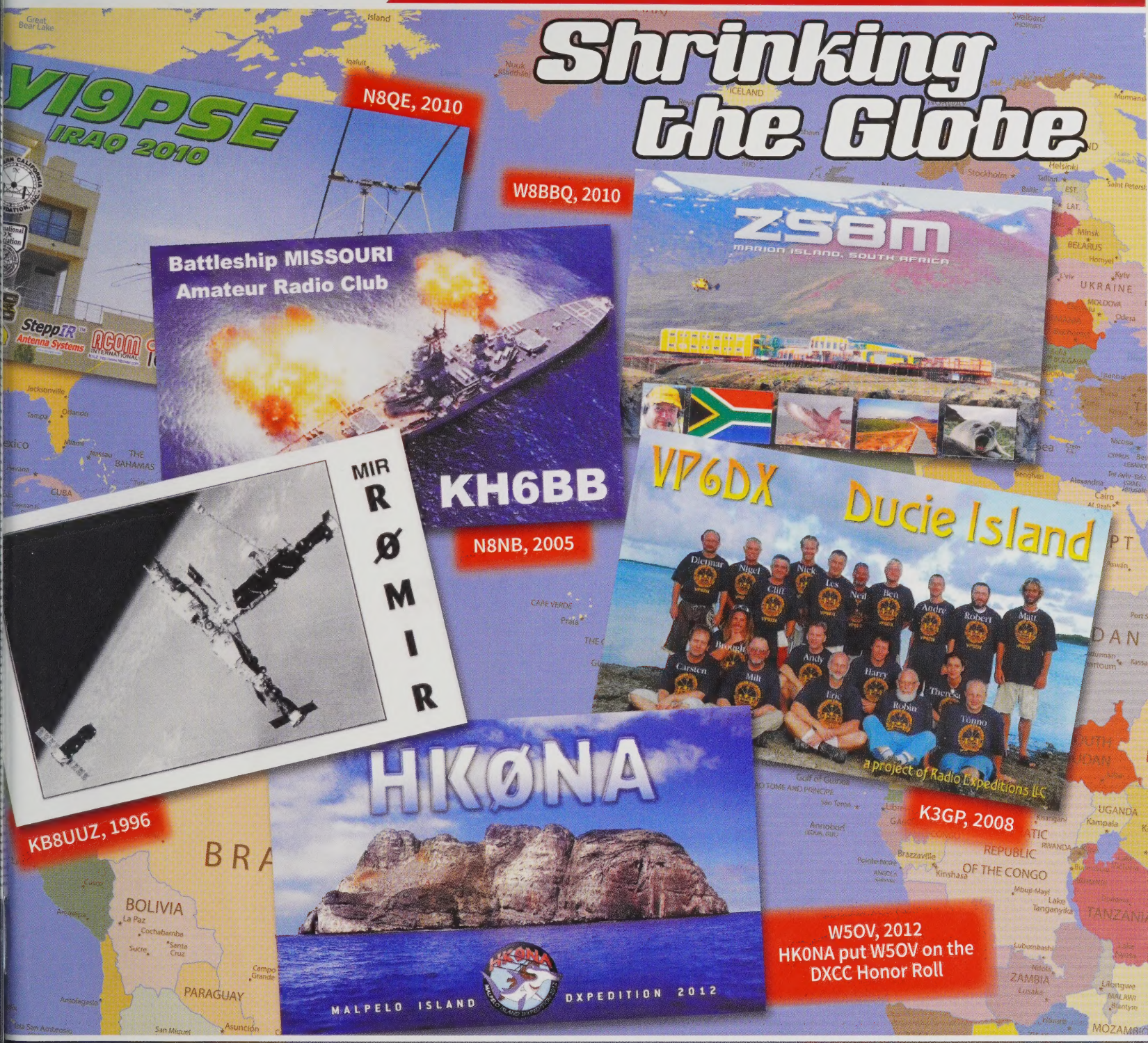
Shrinking the Globe



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Butternut Antenna | Clifton Laboratories | Comtek | TransWorld Antenna

As 2018 enters its final quarter, I have been reflecting on the year past. What an exceptional time it has been for Ham Radio!

Dayton Hamvention and Contest University were once again packed. The World Radiosport Team Championship in Germany brought together top contesters from more than 30 countries. The Baker Island KH1/KH7Z DXpedition made it possible for thousands of DXers to log an All-Time New One. EMCOMM specialists provided vital communications when hurricane Maria hit Puerto Rico. And scores of people, from teens to retirees, joined the ranks of Ham Radio licensees.

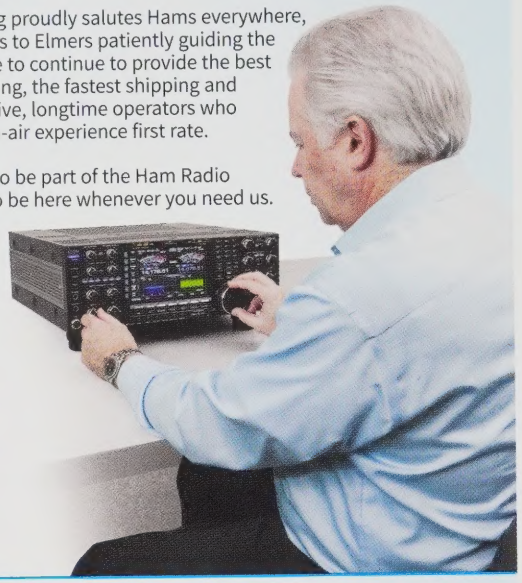
Throughout the year, I have had the privilege of getting to know the future of our great hobby—the young men and women who have embraced Amateur Radio with the same enthusiasm we had when making our first contacts years ago. In talking with these bright and talented operators, I see tomorrow's scientists, engineers, adventurers, inventors and, when crisis strikes, heroes. Above all, I see a group destined to take radio communications to even greater heights. Just watch.

The team at DX Engineering proudly salutes Hams everywhere, from intrepid DXpeditioners to Elmers patiently guiding the next generation. We pledge to continue to provide the best selection, competitive pricing, the fastest shipping and technical support from active, longtime operators who care about making your on-air experience first rate.

Yes, it is a wonderful time to be part of the Ham Radio community. Count on us to be here whenever you need us.

I hope to hear you on the air,

73,
Tim Duffy
K3LR



Tim Duffy, K3LR
Chief Operating Officer
and General Manager

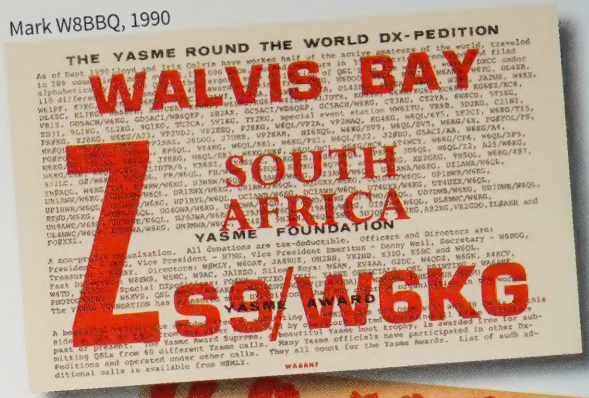
1 Peter 5:4-5 (ESV) *And when the chief Shepherd appears, you will receive the unfading crown of glory. Likewise, you who are younger, be subject to the elders. Clothe yourselves, all of you, with humility toward one another, for "God opposes the proud but gives grace to the humble."*

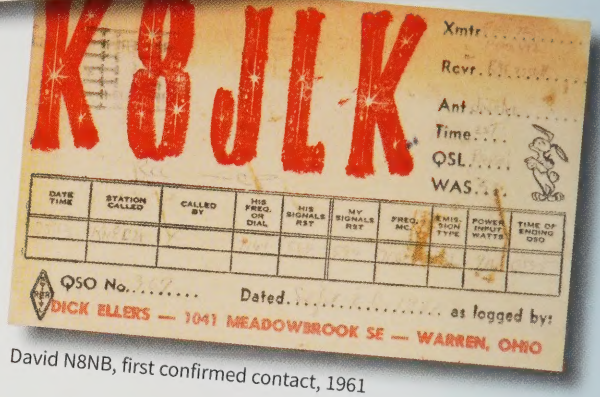
On the Cover

When designing the catalog, team members at DX Engineering were given the near impossible task of choosing QSL cards out of the many hundreds in their collections. As one of our DXers said, "All have stories attached to them. There's no way I can pick just a few." So they did their best.

- **R0MIR, Mir Space Station, 1996, Tom KB8UUZ:** "I contacted the Mir Space Station on 2 meters while sitting in my car in the driveway. Talked to astronaut Shannon Lucid, Mir Commander."
- **VP6DX Ducie Island, 2008, George K3GP:** "Their QSL 'card' is a 32-page booklet loaded with photographs and details of the DXpedition."
- **HK0NA Malpelo Island, 2012, Bob W5OV:** This contact put our sales manager Bob Naumann on the DXCC Honor Roll with over 300 entities logged.
- **ZS8M Marion Island, 2010, Mark W8BBQ:** "I worked Pierre Tromp ZS1HF for an ATNO that was on the DXCC top-ten most wanted list (3rd at the time)."
- **YI9PSE Iraq, 2010, Bob N8QE:** "This was the only time I worked Iraq in my over 50 years of Ham Radio experience."
- **KH6BB Battleship Missouri Amateur Radio Club, 2005, David N8NB:** "It was a thrill to contact this station, but it was more of a thrill to operate from the radio room on board when I visited Hawaii."

Mark W8BBQ, 1990





David N8NB, first confirmed contact, 1961

Our Expertise: It's in the Cards

To non-Hams, they're just colorful slips of paper marked by exotic images, names of little-known locales, and curious combinations of numbers and letters: KH1/KHZ7 Baker Island, K5K Kingman Reef, VP6DX Ducie Island, 3Y5X Bouvet Island, et. al.

But to us, these hard-earned QSL cards represent something both challenging and profound—a lifelong quest to "work the world," to make contact with the infrequently trodden corners of our vast planet. Behind each card is a story about the DXpeditioners and our attempts to reach them. Some locations took years to finally log. Others were miraculously captured on the first or second try. A handful of cards came from infamously unauthorized operations, or display jurisdictions no longer recognized as DXCC entities. A few—the ultra-hard ones—shine like rare gems in our carefully arranged collections. Then there are QSLs from the International Space Station—keepsakes that never fail to let the unitiated know just how cool Ham Radio is.

All the QSL cards on the front and inside of our Fall 2018 Catalog belong to members of the DX Engineering team, longtime operators and passionate DXers. If you've worked a major DXpedition, chances are good that we've joined you in the pile-ups. Together, we've shared the challenge of battling less-than-ideal propagation as well as the satisfaction of making a long-awaited QSO and proudly posting the QSL card in our shack. Perhaps most important, these DXpeditions often feature DX Engineering gear, some of it custom-designed to meet the demands of the harshest environments.

Our QSL cards say: *We've been there, and can do that.* It's your guarantee that you'll be dealing with experienced operators whenever you call.

Unrivaled Support

We love Ham Radio as much as you do. Beyond DXing, our team is comprised of experienced contesters, EMCOMM operators, and experts in every aspect of the hobby. When you contact DX Engineering, you can expect the ongoing support of a friendly, experienced Ham every time, whether purchasing your first HT or looking to upgrade to the latest rig in time for the next major DXpedition. And your relationship with us doesn't end when you open your DX Engineering package at home. We're here for you long term.

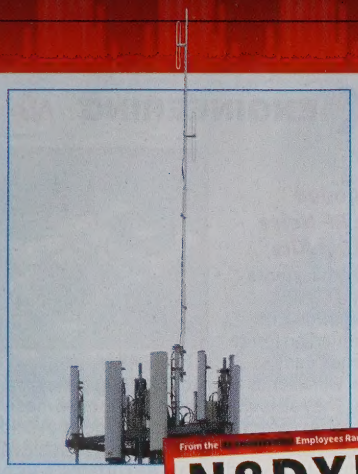
Fastest Shipping

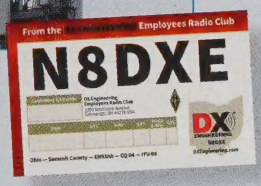
There's nothing more painful than being off the air while waiting for equipment to arrive. At DX Engineering, you can count on us to provide the fastest shipping available. How fast? Most orders placed by 10 pm Eastern Time are shipped the same day. DX Engineering offers free shipping for almost any order over $99. As we like to say, radio waves travel at the speed of light. Lucky for you, so does DX Engineering.

The Latest Amateur Radio Products

Take some time checking out what's new inside our 2018 Fall Catalog. You'll find the latest transceivers from Yaesu and Kenwood, wire antenna kits from SOTABeams, Chameleon's EMCOMM-III Portable HF Antenna, the Geochron 4K UHD World Clock, Heil's BM-17 Emergency Communication Headsets, DX Engineering innovations for contesters, new gear from Hamplus, and plenty more. To discover all that we offer, visit DXEngineering.com.

See page 59 for more QSL cards from our team and the personal stories behind them.





N8DXE Repeater, 146.985 MHz

If you're driving through Akron on I-76, you can check into our repeater, 146.985 MHz, no PL. We're fortunate to have several local clubs nearby, so there's always plenty of activity. The repeater covers most of the east side of Akron, and stretches close to the Pennsylvania state line.

DX Engineering's Tower and HF Array

Our 80 foot Rohn tower at DX Engineering headquarters is now in place. Atop the tower sits three HF beam antennas: an EAntenna Yagi, plus a DX Engineering Skyhawk™ and Skylark—selectable via a Hamplus antenna switching system. These antennas deliver exceptional HF performance on the bands, and will serve as "Test Beds" for many of the products we're developing.

The best part? You can use them too!
Each antenna will be fed by the radios in our Retail Showroom. These new, no-compromise stations give you the rare opportunity to try out exclusive Amateur Radio gear, so you can make an educated purchase decision. If you're traveling near Akron, Ohio, stop in and get on the air—we'll gladly toss you a mic or key. Read more about it on the inside front cover!

DX Bucks

Earn Rewards with Your Purchases!

DX Bucks are like gift certificates to use on future orders from DX Engineering. When you're awarded DX Bucks, you'll get a numbered certificate in the mail about two weeks after we ship your order.

Redeem By Phone: Just give us your certificate number when ordering.

Redeem By Mail: Include the certificate number with your order.

Redeem Online: When checking out, you'll see a box to enter in your certificate number. Just type that number in the space and your total will change to reflect your rewards.

DX Bucks are not redeemable for cash, can't be used to purchase gift cards, and have no value after the expiration date. If you've earned DX Bucks with a purchase and return the qualifying product for credit, then you forfeit the DX Bucks reward. If you exchange one qualifying item for another qualifying item, you only get one DX Bucks reward. DX Engineering reserves the right to cancel or reject DX Bucks certificates obtained fraudulently.

Check DXEngineering.com for the latest deals!

WARNING

Proposition 65 Compliance Statement:
It is the responsibility of DX Engineering to warn its customers and employees that some products sold in this catalog contain chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm. Go to DXEngineering.com/Go/FAQs-DXE-Prop65 for more information.

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FoxRex ARDF Fox Hunting Receivers

RigExpert® New!

For those who enjoy the thrill of hunting for that elusive hidden signal (the "fox"), RigExpert's pair of feature-rich Amateur Radio Direction Finding (ARDF) receivers can help elevate you from hapless chaser to esteemed champion. Two models are available: the FoxRex 144 for VHF direction-finding on 2 meters and the FoxRex 3500 for 80 meter radio-orienteering. Perfect for easy transport in the field, the 144 features a solidly-built yet lightweight three-element Yagi antenna (design WB2HOL) integrated into the receiver. The unit can store up to 11 frequencies for different foxes and comes with a built-in battery that supports the receiver for about 30 hours. The lightweight, easy-to-operate two-button 3500 features 40-hour operating time, and built-in loop and sense antennas that make direction-finding a snap. Both models have built-in LCD screens, digital VFOs and rangefinders, "fox time remaining" timer, acoustic S-meters, fox proximity alarms, internal battery chargers, rugged aluminum construction and a host of other hunting tools. A microprocessor controls the receive frequency and gain setting, estimates the distance to the transmsitter, displays which fox is currently transmitting, signals when the fox is close by and more.

REU-FOXREX3500

REU-FOXREX144 FoxRex 144 2M Fox Hunting Receiver..... **$469.99**

REU-FOXREX3500 FoxRex 144 80M Fox Hunting Receiver..... **$299.99**

ARDF Micro-Power Beacons

For best fox hunting results, pair the FoxRex 144 and 3500 ARDF Receivers with RigExpert's Red Fox Beacons.

REU-REDFOX144 Micro-Power Beacon for FoxRex 144..... **$30.99**

REU-REDFOX3500 Micro-Power Beacon for FoxRex 3500..... **$22.99**

SB™ New!

SOTABeams Products for Yaesu Transceivers

DX Engineering carries the Click2Tune Easy Tuning Dongle for Yaesu FT-817, FT-818, FT-857 and FT-897 Transceivers; plug-and-play speech compressors; and peg legs and DC Powerpole® adapter for the FT-817/818.

SOTABeams Products for Yaesu ..... See page 14

SB™

SOTABeams Wire Antenna Kits and Masts

DX Engineering is excited to now offer SOTABeams' lineup of lightweight, portable and pre-assembled wire antennas, including its Band Hopper 3- and 4-Band Dipoles, Half-Wave End-Fed Antennas for 20 or 40 meters, and the Bandspringer Midi HF Antenna, which covers 60 to 10 meters. All SOTABeams antenna kits are built for fast, easy deployment and excellent receive and transmit performance wherever you operate. Also new from SOTABeams is the Tactical TAC7000HDS heavy-duty fiberglass 23' telescopic mast (collapsible to 23") and the super-light MINI Telescopic Fiberglass Pole, which extends to 13' 6" with a closed length of only 20".

Wire Antenna Kits and Masts ..... See page 54

DX ENGINEERING® New!

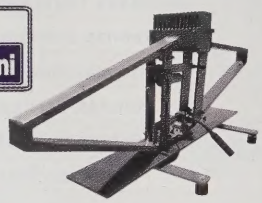
RXSHARE Audio Switch for Multi- and Single-Operator Contesting

In the heat of a contest, serious competitors look for an edge that can push them to the top. The new RXSHARE Audio Switch gives two operators complete control of the specific audio they want fed to their stereo headphones, while either operating two separate radios or one shared radio. This means better coordination, fewer interruptions, less fatigue, and more QSOs. Each operator controls a three-position switch that allows them to listen to one, the other, or both channels of audio. For single-operator/two-radio contesting, the operator can listen to the same audio in both ears from a single radio, or hear the audio from each radio in one ear for simultaneous CQ-ing and tuning for new contacts.

RXSHARE Audio Switch ..... See page 25

Ciro Mazzoni Radiocomunicazioni

New!

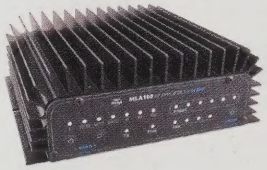


Stealth Loop Antenna

From the loop antenna experts at Italy's Ciro Mazzoni comes the new low-profile Stealth Loop Antenna by I3VHF. Premiered at Dayton Hamvention 2018 and now available from DX Engineering, the 6.6-29.8 MHz continuous coverage Stealth Loop measures only 54" x 19.6" x 10.2", making it ideal for keeping out of sight while letting you work the 40 to 10 meter bands.

Stealth Loop Antenna ..... See page 55

RM ITALY New!

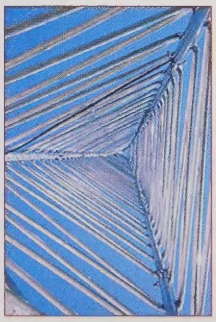


HF+6M Linear Amplifier

RM Italy's new compact 100 watt, 1.8 to 54 MHz amplifier features extremely fast RX/TX switching; LED indicators for SWR and output power; automatic protections against overdriving, overheating and excessive ROS; band filters with manual or automatic selection; and a host of other benefits. Ruggedly built, the MLA100 is a great choice for QSK CW, SSB, digital and other operations covering the HF bands and 6 meters.

HF+6M Linear Amplifier ..... See page 45

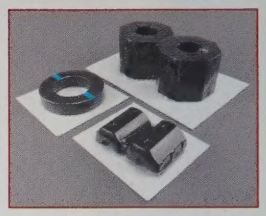
Universal Towers



Universal Towers was opened in 1969 as a family owned and operated business. Today, Amateur Radio operators everywhere take advantage of the company's finely constructed lightweight freestanding aluminum towers that deliver reliable performance and outstanding appearance, with no guy wires to get in the way. Made in the USA, Universal's standard and heavy-duty towers, from 30 to 100 feet, are easy to assemble and backed by an experienced team of engineers, technicians and support specialists focused on helping Hams get the results they want. DX Engineering also carries the full lineup of Universal tower accessories. See DXEngineering.com for ordering information.

DX ENGINEERING® New!

Color-Coded Ferrite RF Noise Reduction Kits



There's nothing more frustrating than searching through a box of unmarked ferrite toroids and beads, unsure of which ones are right for your application. The problem: They all look the same, but they're made from different mixes of ferrite, a ceramic made from oxides of magnetic metals. DX Engineering has selected mixes designed to block and dissipate RF currents, a technique that is proven to suppress radio frequency interference (RFI). Each mix works best over a certain frequency range. By color-coding our ferrite products, you can tell a toroid made from 31-mix from one made with 77-mix at a glance, taking the guesswork out of finding the right piece to place on your feedlines.

Color-Coded Ferrite RF Noise Reduction Kits ...See page 49

DX ENGINEERING® New!

NVIS Antenna Kits

DX Engineering NVIS Antenna Kits are ideal for EMCOMM and any use where short range HF operation on 80 and 40 meters is desired. Available in two models—DXE-NVIS-8040 full size and DXE-NVIS-8040S trapped 80 meter—the kits come complete with 14 AWG stranded wire; 15', four-section telescopic fiberglass mast collapsible to under 6'; antenna stakes; 100 feet of RG-8X coax assembly with PL-259 connectors; insulators; COMTEK balun and mounting kit; and stainless steel hardware. Easy to deploy and stealthy, the antennas are capable of handling 1,500 watts of power.

NVIS Antenna Kits ..... See page 52

GEOCHRON®

New!

Digital 4K UHD World Clock

Enjoy all the functionality, Ham-friendly features and beauty of Geochron's World Clock for a fraction of the cost! DX Engineering is the only Amateur Radio retailer worldwide that sells the Digital 4K UHD. The device gives viewers magnificent displays of the Earth with the sunrise-sunset rendered in real time through a small computer that plugs directly into a 4K TV (not provided) via HDMI. The size of the display is only limited by the size of the TV. The Ham Radio mapset includes display of the "Gray Line" in real time; DX and international prefixes; equatorial, latitude & longitude, and tropic points of reference; and much more.

Digital 4K UHD World Clock .....See page 37

K7NV Mast Clamps

K7NV Heavy-Duty Rotator Mast Clamps

These precision-constructed clamps accommodate 2" diameter masts and replace stock units installed on the top of M2 Antennas OR-2800 Positioners and Yaesu G2800-DXA, G1000-DXA and G800-DXA rotators. The direct bolt-on replacements significantly improve the mast connection to the rotator and prevent mast slippage that can result with larger array setups.

New!

Heavy-Duty Rotator Mast Clamps ..... See page 78

DXE-MBLALO-LGMNT

DXE-MBLICO-TRMNT

DXE-MBLKWD-MGMNT

DXE-MBLYSU-TRMNT

Getting Started Mobile Radio Packages

Based around your choice of a 2 meter mobile transceiver, these combos will show you what typically goes into a mobile station. There are three mounting options for each radio combo: magnet, trunk/hatch or luggage rack. Each combo also includes a 2M mobile antenna and the right coaxial cable (with installed connectors) to complete a hassle-free installation.

Package Part Number	Radio	Antenna	Mount	Price
DXE-MBLALO-LGMNT	Alinco DR-B185HT	52.4" Monoband	Luggage Rack	**$269.92***
DXE-MBLALO-MGMNT	Alinco DR-B185HT	40.2" Dual-Band	Magnet	**$268.93***
DXE-MBLALO-TRMNT	Alinco DR-B185HT	52.4" Monoband	Trunk/Hatch	**$261.92***
DXE-MBLICO-LGMNT	Icom IC-2300H	40.2" Dual-Band	Luggage Rack	**$285.92***
DXE-MBLICO-MGMNT	Icom IC-2300H	40.2" Dual-Band	Magnet	**$284.93***
DXE-MBLICO-TRMNT	Icom IC-2300H	52.4" Monoband	Trunk/Hatch	**$277.92***
DXE-MBLKWD-LGMNT	Kenwood TM-281A	52.4" Monoband	Luggage Rack	**$262.92***
DXE-MBLKWD-MGMNT	Kenwood TM-281A	40.2" Dual-Band	Magnet	**$261.93***
DXE-MBLKWD-TRMNT	Kenwood TM-281A	52.4" Monoband	Trunk/Hatch	**$254.92***
DXE-MBLYSU-LGMNT	Yaesu FTM-3200DR	52.4" Monoband	Luggage Rack	**$255.92***
DXE-MBLYSU-MGMNT	Yaesu FTM-3200DR	40.2" Dual-Band	Magnet	**$254.93***
DXE-MBLYSU-TRMNT	Yaesu FTM-3200DR	52.4" Monoband	Trunk/Hatch	**$247.92***

DXE-HTALO-BASIC

DXE-HTICO-BASIC

DXE-HTKWD-BASIC

DXE-HTYSU-BASIC

Getting Started HT Radio Packages

The quickest way to start enjoying your Amateur Radio license is probably with a handheld transceiver commonly referred to as an HT or "Handi-Talkie." A handheld radio is basically an all-in-one package, but there are some important accessories that make using an HT easier. Specifically, you'll want a better antenna for enhanced performance, the right programming software and cables, plus a separate earpiece/mic to make using the radio more convenient. We've done the part-matching guesswork with these Getting Started HT Radio Packages.

Package Part Number	Radio	Antenna	Software/Cable Part Number	Earpiece/Mic	Price
DXE-HTALO-BASIC	Alinco DJ-500T	15" Flexible	RTP-APK-500-USB	Speaker Mic	**$246.92***
DXE-HTICO-BASIC	Icom IC-V80-SPORT	52" Telescopic	RTP-WCS-V80-USB	Earhook Mic	**$210.92***
DXE-HTKWD-BASIC	Kenwood TH-K20A	15" Flexible	RTP-KRS-K20-USB	Headset Mic	**$234.92***
DXE-HTYSU-BASIC	Yaesu FT-270R	15" Flexible	RTP-ADMS-270-USB	Earpiece Mic	**$261.92***

***See DXEngineering.com for special promotional pricing.**

DX ENGINEERING ALINCO NANUK ICOM HEIL SOUND BUCKMASTER

IC-7300 Basic Package

We created a package using the most common accessories including the popular IC-7300. It's a perfect starter set for folks who want to get active on HF, without a lot of equipment-matching guesswork. The package includes:

- Icom IC-7300 HF Plus 50 MHz Transceiver
- Buckmaster 80-6M OCF Dipole Antenna
- 100' of DX Engineering RG-8X Coax
- DX Engineering Foot Switch
- Heil Pro Set Headset
- NANUK Wheeled Case
- Nifty Mini-Manual
- Alinco Digital Power Supply

DXE-HF7300-BASIC IC-7300 Basic Package..... **$2,360.31***

***See DXEngineering.com for special promotional pricing.**

DX ENGINEERING ALINCO KENWOOD ICOM YAESU

Getting Started Packages

Building your first Ham Radio station can be overwhelming. In the Elmer spirit, we've created Getting Started Packages that illustrate what it takes to get on the air for three operating styles: base, mobile and handheld. The Packages are built around popular radios, good for beginners and experts alike. Of course, these are just suggestions and each part is available separately, so you can build your own custom combo using whatever component you want. Type "Getting Started" into the search box at DXEngineering.com to see details.

DXE-HFALO-BASIC

DXE-HFICO-BASIC

DXE-HFKWD-BASIC

DXE-HFYSU-BASIC

Getting Started Base HF Radio Packages

Selecting the right parts for an HF station is more involved than an HT or mobile setup. DX Engineering's team of veteran operators built a quartet of Base HF Radio Packages with practically everything you need to set up your home station and get active on the HF and 6 meter bands. The packages include:

- Buckmaster OCF Dipole Wire Antenna
- 100' of DX Engineering RG-8X Coaxial Cable
- Footswitch, DXE-FS-001
- Heil Pro Set 6 Headset and Adapter Cable
- Samlex Power Supply

Select your package below based on your radio preference.

DXE-HFALO-BASIC	Base HF Radio Package, Alinco DX-SR8T	**CALL/WEB**
DXE-HFICO-BASIC	Base HF Radio Package, Icom IC-718	**CALL/WEB**
DXE-HFKWD-BASIC	Base HF Radio Package, Kenwood TS-480SAT	**CALL/WEB**
DXE-HFYSU-BASIC	Base HF Radio Package, Yaesu FT-450D	**CALL/WEB**

DX ENGINEERING ALINCO YAESU

Complete Station Packages

DX Engineering answers the question many new operators have when building a station: Where do I begin? We've made it easy by bundling together most of the items you need to get your shack equipped and ready for operation. Packages include a popular transceiver, antenna, power supply (if required) and accessories. Whether you want a portable station for QRP or one boasting a high-performance software defined rig for DXing and contesting, you'll find a package to suit your needs and budget. Enter "talkanywhere" at DXEngineering.com to view your options.

ELECRAFT

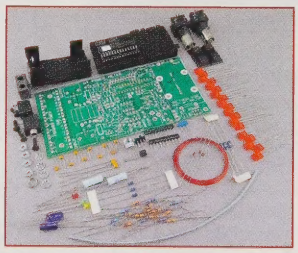
Elecraft

Long recognized for its high-performance HF and CW transceivers, linear power amps, panadapters and signature build-your-own-gear kits, Elecraft has been dedicated to "Hands-on Ham Radio" since its founding in 1998. DX Engineering is now excited to offer a great selection of finely crafted Elecraft kits and accessories to enhance your station's performance and have fun building. For full details, enter "Elecraft" at DXEngineering.com.

Programmable Signal Source

Great for shack or field use, Elecraft's versatile miniature 160-2M RF signal source comes with four calibrated output levels and a host of performance-enhancing applications: receiver calibration, sensitivity tests, signal tracing, and as a VFO for home-brew projects. Its serial port allows you to use a computer to set up its frequency and output level, assign frequencies to band switches, and set up sweep step size and rate. You can use the downloadable PC software or write your own XG3 applications. Programmable Signal Source comes factory assembled and tested, not as a kit.

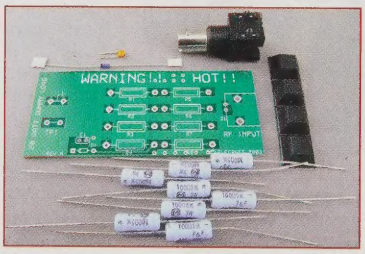
ECT-XG3 Programmable Signal Source **$239.95**



140W Computing Wattmeter/SWR Bridge, Full Kit

Perfect for kit-building projects and QRP enthusiasts, this versatile microprocessor-based RF power and SWR meter makes simple work of monitoring your equipment. It automatically selects the proper power range of up to 1.4, 14 or 140 watts and indicates the peak forward power and SWR on built-in bar-graph LEDs. High resolution power and SWR readings are also available through a connector as RS232 serial data for display on a computer.

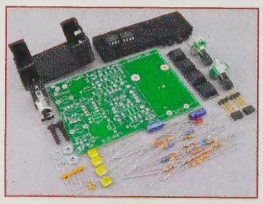
ECT-W1 Computing Wattmeter/SWR Bridge, Full Kit **$129.95**



25 Watt Dummy Load, Full Kit

Test with confidence! A smart tool for any shack, this general purpose, wideband 50-ohm Dummy Load lets you test or align your transceiver before connecting your antenna. The unit handles up to 20 watts continuous power, or higher power (up to 100 watts) in short bursts. It also includes a diode detector for measuring power output.

ECT-DL1 25 Watt Dummy Load, Full Kit **$29.95**



2-Tone Test Oscillator

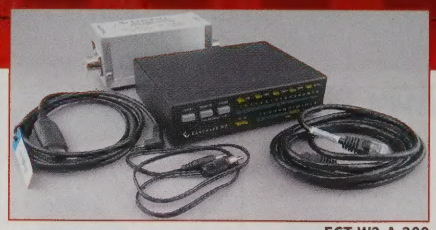
Measuring Transmit Intermodulation Distortion (IMD) is critical when evaluating HF SSB transmitter or amplifier performance. This precision tool makes it simple. Elecraft's 2T-GEN provides a standard 2-tone (700 and 1900Hz) audio source for IMD testing, allowing you to quickly assess how linearity may be impacting SSB fidelity and splatter. The mini-module is a compact 2.5" W x 3.5" L and fits directly into the microphone connector of almost any transceiver. Battery not included.

ECT-2T-GEN 2-Tone Test Oscillator **$79.95**

1:1/4:1 Balun, Full Kit

An excellent choice for both home and field use, this higher-power version of Elecraft's BL1 model provides a conservative 250-watt rating and very cool operation at 100 watts. It includes a rugged, easy-to-use 4:1/1:1 switch, allowing optimization for different loads or feed lines. The unit's special winding technique reduces losses and extends the useful range, resulting in an SWR of less than 1.2:1 from 500 kHz to 55 MHz. The balun also comes with screw terminals for the balanced output as well as ground.

ECT-BL2 1:1/4:1 Balun, Full Kit **$49.95**



ECT-W2-A-200

ECT-W2-K-200

W2 Wattmeter

Perfect for both QRO and QRP operators, Elecraft W2 Wattmeters provide fast, high-brightness independent LED bar graphs of power and SWR to easily keep track of transmitter, amplifier and antenna performance. These auto-ranging power/SWR meters feature two sensor inputs, PC remote connectivity, over-range alarm and amp keying control. DX Engineering stocks both pre-assembled units and no-solder, easy-build kits. They include tested power couplers for 2/20/200W (200W models) and 20/200/2000W (2,000W models). Now available in VHF/UHF 200W versions. Free software download at keyword "Elecraft." Additional sensor available separately.

ECT-W2-A-200	SWR/200W Wattmeter/Assembled, 1.8-54 MHz	**$349.95**
ECT-W2-K-200	SWR/200W Wattmeter/Kit, 1.8-54 MHz	**$299.95**
ECT-W2-A-2000	SWR/2,000W Wattmeter/Assembled, 1.8-54 MHz	**$349.95**
ECT-W2-K-2000	SWR/2,000W Wattmeter/Kit, 1.8-54 MHz	**$299.95**
ECT-W2-A-V-U	SWR/200W VHF/UHF Wattmeter/Assembled	**$349.95**
ECT-W2-K-V-U	SWR/200W VHF/UHF Wattmeter/Kit	**$299.95**

ECT-DCHF-200A

ECT-DCHF-2000A

W2 Wattmeter Sensors

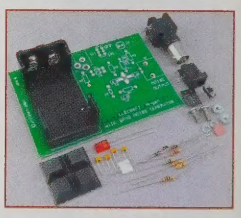
These 1.8-54 MHz dual directional coupler remote sensors are available to expand the functionality of your W2 Wattmeter. Add a sensor to cover a different power range. Choose from 0.1-200 watt or 1-2000 watt models. Fully assembled and calibrated, not a kit.

ECT-DCHF-2000A	SWR/W2 Wattmeter Sensors 1-2000W	**$159.95**
ECT-DCHF-200A	SWR/W2 Wattmeter Sensors 0.1-200W	**$159.95**

USB Adapter Cable

DX Engineering now carries this special replacement USB interface cable (USB A to 3.5mm) for Elecraft's famous KX3 160-6M Transceiver, its XG3 Programmable Signal Source, and other equipment.

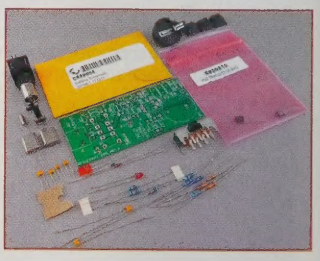
ECT-KXUSB-A USB to 3.5mm TRS Adapter Cable **$32.95**



Wideband Noise Generator, Full Kit

Don't align your receiver without the versatile N-gen Wideband Noise Generator from Elecraft. Featuring bandwith within 3 dB from 100 kHz to 500 MHz, the N-gen can be used with software programs such as Spectrogram to align IF filters in Elecraft's K2 or in other receivers. It's also handy for aligning the RF stages in Elecraft XV Transverters or other HF, VHF and UHF equipment.

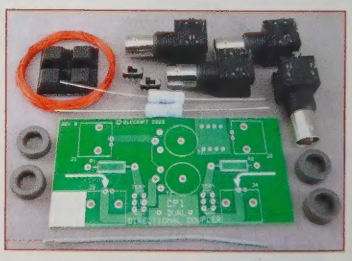
ECT-NGEN Wideband Noise Generator, Full Kit **$79.95**



3-Band Receiver Test Oscillator, Full Kit

Built off of Elecraft's popular XG1, the XG2 delivers precision readings, with an output accuracy typically better than +/-2 dB. The unit is a fixed-frequency signal source with switch-selectable oscillator frequencies that have been expanded to three popular bands: 80, 40 and 20M. It can be used for receiver alignment and qualitative tests on or near most HF Ham bands; to determine a receiver's Minimum Discernible Signal, as well as its overall receive gain; and for S-meter calibration.

ECT-XG2 3-Band Receiver Test Oscillator, Full Kit **$89.95**



Dual Directional Coupler

A welcome companion for Elecraft's 2-Tone Test Oscillator, the CP1 Dual Directional Coupler lets you easily sample a transmitter's forward power and reflected power output. The high-directivity coupler connects to an oscilloscope or station monitor for display of the transmit envelope. A handy tool for any shack, it can also be used with a diode detector to create a 25- or 250-watt SWR bridge, or with a spectrum analyzer and tracking generator to sweep the return loss (SWR) of an antenna or other device in real-time. The unit operates over a 1 MHz to 30 MHz frequency range.

ECT-CP1 Dual Directional Coupler, Full Kit **$59.95**

YAESU

Premium HF/50 MHz Transceiver

Look closely, the FTDX-5000MPL is actually two receivers in one. That's because the radio was designed to meet the demands of the high-performance contest and DXers stations. Two independent receivers means you get two Yaesu-designed 32-bit floating point DSP for VFO-A and VFO-B. Testing reveals that the FTDX5000MPL boasts incredible 112 dB dynamic range and +40 dBm, 3rd-order intercept.

Yaesu also incorporated razor-sharp selectable roofing filters and a 300 Hz filter for CW operation. Using this radio is easy too, thanks to the large screen's Practical Level Indication System that displays important settings like mic gain, RF power, CW pitch, keyer speed, processor level, VOX delay and break-in delay time. The FTDX-5000MPL features a built-in power supply, to keep your desk uncluttered.

Add the optional station monitor for the spectrum scope and stereo speakers to hear both receivers.

YSU-FTDX-5000MPL	Limited HF/50 MHz Transceiver	**CALL/WEB**
YSU-SCU-21	USB Interface Cable	**$39.99**
YSU-SM-5000	Station Monitor	**$329.99**

YAESU *HF/50 MHz Transceiver*

Take a look at this radio's features, then visit DXEngineering.com and check out what it costs. It's tough to believe that Yaesu was able to cram this much performance into a radio at this price. The brilliant high-resolution display can be adjusted to show a spectrum scope and TX/RX frequency. Behind that large screen lies the FTDX-1200's high-speed floating point DSP, along with an advanced digital noise reduction circuit. A high performance IF DSP ensures effective QRM rejection.

Other important features include a CW SPOT, adjustable VOX delay and a built-in electronic keyer. When connected to a PC via the optional cable, you can even configure the FTDX-1200 for remote control. An optional FFT unit also enables RTT/PSK31/CW encode/decode.

YSU-FTDX-1200	HF/50 MHz Transceiver	**CALL/WEB**
YSU-FFT-1	FFT Unit	**$189.99**

YAESU *HF/50 MHz Transceiver*

Yaesu's FTDX series has a well-deserved reputation for delivering phenomenal multi-signal characteristics. You'll find those qualities in the FTDX-3000, thanks to a top-quality down conversion design and powerful narrow bandwidth crystal roofing filters. The radio also incorporates a digital filtering, which is very effective at removing interfering signals. An advanced DSP circuit ensures excellent on-air copy and the radio's built-in automatic tuner makes switching bands quick and hassle-free.

The FTDX-3000 has a USB input—handy for receiving firmware updates, and facilitating CAT, USB audio in/out and USB TX control. Operating RTTY, SSTV, PSK31, JT and other digital modes is easy. The radio is rated at 100 watts maximum output power.

YSU-FTDX-3000	HF/50 MHz Transceiver	**CALL/WEB**
YSU-XF-127CN	Crystal Filter, CW Narrow, 300 Hz	**$199.99**

YAESU

Accessory	Part Number	Description	YSU-FT-450D	YSU-FT-991A	YSU-FTDX-1200	YSU-FTDX-3000	YSU-FTDX-5000PL
Antenna	YSU-ATAS-120A	40M-70cm Auto Active Tuning Mobile Antenna	X	X			
Antenna Base Kit	YSU-ATBK-100	VHF/UHF Antenna Base Kit	X	X			
Internal High-Q Tuning Units	YSU-MTU-160	160M Internal High-Q Tuning Unit			X	X	X
	YSU-MTU-80-40	80-40M Internal High-Q Tuning Unit			X	X	X
	YSU-MTU-30-20	30-20M Internal High-Q Tuning Unit			X	X	X
Microphone	YSU-MH-36E8J	Hand Mic, DTMF	X	X			
Cable	YSU-CT-39A	Packet Cable, 6-Pin DIN to Stripped Leads	X	X	X	X	
Keypad	YSU-FH-2	Remote Control Keypad		X	X	X	X
Interface Unit	YSU-SCU-17	USB Interface Unit, with Hookup Cables	X		X	X	X
Memory Unit	YSU-DVS-6	Voice Memory Unit, 5 Memories			X	X	
External M-Tune RF Preselector Filters	YSU-RFMUTUNEKITA	160M External M-Tune Preselector Filter			X	X	X
	YSU-RFMUTUNEKITB	80-40M External M-Tune Preselector Filter			X	X	X
	YSU-RFMUTUNEKITC	30-20M External M-Tune Preselector Filter			X	X	X

Orders by 10 pm ET ship the same day. See pg. 76 for details.

FTdx-101D HF/50MHz Transceiver Reservation

New!

DX Engineering makes it easy to place your risk-free** reservation for the elite new high-end Yaesu FTdx-101D HF/50MHz Transceiver, featuring leading-edge SDR technology and a host of other benefits premiered at Dayton Hamvention 2018. Here are some of the rig's announced features:

YAESU

- High class 160 to 6 meters 100 watt transceiver
- Large touch-panel precision color display
- SDR technology with real-time waterfall and spectrum scopes
- Two receivers with independent control for the serious contester
- Active band monitor
- High-Q VC tuning front-end
- DSP auto notch
- General coverage RX
- 32 Bit IF DSP and digital noise reduction
- Easy operation with intuitive menus

Your reservation fee will be applied to the total Yaesu FTdx-101D purchase price at sale completion. When the radios become available, orders for the FTdx-101D will be shipped in the order that reservations were received.

YSU-FTDX-101D HF/50MHz Transceiver.....**Pending FCC Approval**

***When these new transceivers become available you will be entitled to a first right of refusal on a first come, first served basis. Once these transceivers have received FCC Type Certification and are offered for sale by Yaesu, with officially announced pricing, you will be contacted by DX Engineering to complete your order. Should you choose not to complete your FTdx-101D order, your non-refundable deposit will be converted to a Gift Card that you can use toward any product offered by DX Engineering.*

YAESU

HF/VHF/UHF Multi-Mode Transceiver

Ideal as an all-band base station radio, Yaesu's FT-991A delivers 160M-70cm coverage with multi-mode operation, including CW, AM, FM, SSB and Digital Modes like Packet, PSK-31, RTTY and C4FM. Updated from the original FT-991, the FT-991A includes a new real-time spectrum scope and a multi-color waterfall display.

This radio features an advanced balanced receiver circuit configuration and cutting-edge DSP to deliver excellent interference rejection in real-world operating conditions. The selectable roofing filters help mitigate interference.

The FT-991A packs 100 watts of output power (50 watts on VHF), and has a built-in automatic antenna tuner that will memorize its tuning data to make band switching a laser-fast process. This rugged and compact radio is at home in a base station or, when paired with Yaesu's ATAS antenna, it makes an excellent portable radio.

YSU-FT-991A HF/VHF/UHF Multi-Mode Transceiver .....**CALL/WEB**
YSU-MMB-90 Mobile Mounting Bracket.....**$49.99**
YSU-ATAS-25 Micro Manually Tuned Portable Antenna.....**$249.99**

iPortable

Installed Radios and Accessories not included.

Pro2 Equipment Racks

Simplify your portable or EMCOMM setup in one fell swoop. iPortable's ingenious Pro2 Equipment Rack Systems combine a rugged travel/flight case with a DC power distribution point, speaker and rack shelving. There's plenty of room for you to include a radio or two, plus a power supply and tuner.

The front panel contains a volume control, coax plugs, fuse panel, cigarette lighter port, USB ports, Powerpoles® and a headphone jack. The systems are compatible with virtually any radio setup. They're available in a 4 or 6 rack unit (RU) configuration.

IPR-4UM Pro2 Equipment Rack, 4 RU.....**$325.00**
IPR-6UM Pro2 Equipment Rack, 6 RU.....**$375.00**

YAESU

HF/50 MHz Transceiver

Packing 100 watts of output power on the HF and 6M bands and a slew of innovative features, the compact FT-450 is a great entry-level base station radio for the DX chaser, contester and HF ragchewer. The radio's straightforward controls, operating ease and attractive price tag also make it an excellent choice for the new Ham or casual operator. Adjustable IF width and IF shift controls are effective at mitigating station interference.

For even more versatility, the FT-450 has a built-in antenna tuner. Memory and recall modes make the radio very user-friendly. It's also small enough to be used in an EMCOMM go kit or a portable station.

YSU-FT-450D HF/50 MHz Transceiver..... **CALL/WEB**
YSU-MHG-1 Carrying Handle.....**$14.99**
YSU-MMB-90 Mobile Mounting Bracket.....**$49.99**

Nifty! Ham Accessories

Reference Guides Base Transceivers

Sometimes the hardest part of using a radio is reading the lengthy instruction manual. Nifty created concise Reference Guides for specific radio models, written in easy-to-follow language. They're spiral bound and laminated so they won't get ruined in a drawer, EMCOMM Go Kit or glove box. Choose your manual from the radios below. If yours isn't listed, there are many more available at DXEngineering.com.

Part Number	Brand	Model	Price
NIF-MM-DXSR8	Alinco	DX-SR8	$16.99
NIF-MM-IC7100	Icom	IC-7100	$26.95
NIF-MM-IC718	Icom	IC-718	$16.95
NIF-MM-IC7200	Icom	IC-7200	$16.95
NIF-MM-IC7300	Icom	IC-7300	$22.95
NIF-MM-IC7410	Icom	IC-7410	$20.85
NIF-MM-IC7600	Icom	IC-7600	$24.85
NIF-MM-IC7610	Icom	IC-7610	$24.95
NIF-MM-IC7700	Icom	IC-7700	$24.85
NIF-MM-IC9100	Icom	IC-9100	$22.85
NIF-MM-TS2000	Kenwood	TS-2000/X	$18.85
NIF-MMTS480HXSAT	Kenwood	TS-480HX/SAT	$18.85
NIF-MM-TS590SG	Kenwood	TS-590SG	$20.85
NIF-MM-FT991	Yaesu	FT-991	$22.95
NIF-MM-FT991A	Yaesu	FT-991A	$22.95
NIF-MM-FTDX1200	Yaesu	FTDX-1200	$22.95
NIF-MM-FTDX3000	Yaesu	FTDX-3000	$22.95
NIF-MM-FTDX5000	Yaesu	FTDX-5000/D/MP	$22.95
NIF-MM-FT450	Yaesu	FT-450/D	$20.85

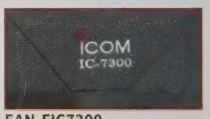
Equipment Covers

You've spent a lot of money on your Ham Radio gear, so protect it with EAntenna's high-quality Equipment Covers. These custom-fit covers are embroidered with the logo and model number of the gear they're protecting. Each polyester/cotton cover has slits in the back, so you can slip it over the radio or amp without unplugging any cables.

Part Number	Description	Price
EAN-FIC7300	Icom IC-7300	$42.99
EAN-FIC7600	Icom IC-7600	$42.99
EAN-FIC7610	Icom IC-7610	$42.99
EAN-FIC7700	Icom IC-7700	$45.99
EAN-FIC7800	Icom IC-7800	$45.99
EAN-FIC7850	Icom IC-7850	$59.99
EAN-FIC7851	Icom IC-7851	$48.99
EAN-FICR8600	Icom IC-8600	$44.99
EAN-FTS590	Kenwood TS-590	$42.99
EAN-FTS990	Kenwood TS-990	$44.99
EAN-FTS2000	Kenwood TS-2000	$42.99
EAN-FFT991	Yaesu FT-991A	$40.99
EAN-FFT2000D	Yaesu FT-2000D	$42.99
EAN-FFTDX1200	Yaesu FTDX-1200	$42.99
EAN-FFTXDX3000	Yaesu FTDX-3000	$42.99
EAN-FFTDX5000	Yaesu FTDX-5000	$42.99

EAN-FIC7600

EAN-FIC7600



EAN-FIC7300

EAN-FFTDX5000

IC-7851 HF/50 MHz Transceiver

Icom just raised the bar on HF receivers. The IC-7851 is designed to give contesters and DXers an edge by incorporating an all-new local oscillator that dramatically reduces phase noise. The purity of the overall design results in a reciprocal mixing dynamic range of 110 dB, which means distant signals are clearer and easier to hear. Better still, a new spectrum scope has twice the sweep speed of previous models, which enables you to see those weak signals with a higher degree of accuracy. Its dual scope function lets you simultaneously watch activity in two bands—so you can snag that rare country or multiplier!

The IC-7851 also features a newly developed 1.2 kHz roofing filter to greatly improve in-band adjacent signal performance. Enhanced mouse control makes this radio even easier to use. With digital IF filter technology, you can easily adjust filter width parameters, essentially allowing you to build your own IF filter. A digital RD speech compressor improves your voice's tone quality, giving your on-air presence a little extra "punch."

- 200 watts
- Digital voice recorder/synthesizer
- Built-in SD card slot
- Twin independent receiver circuits
- Adjustable digital IF notching
- USB, Ethernet and S/PDIF Interface
- Antenna control
- Ultra-high dynamic range
- High speed auto antenna tuner
- PSK63 and PSK31

ICO-IC-7851 HF/50 MHz Transceiver ..... CALL/WEB
XYZ-32GB-SD 32 GB Ultra High Speed Memory Card $16.99

IC-7610 HF/50 MHz Transceiver

DXers and contesters rejoice! Icom's all-new IC-7610 is here to give your station the edge you've been looking for. The unit features an all-mode direct sampling SDR design similar to the much-loved IC-7300. The radio covers the HF and 6M bands, and packs 100 watts of RF output. Its display is an intuitive touchscreen, with real-time spectrum and waterfall displays, and dual watch functionality. It's loaded with features that can take your station to the next level, especially when faced with poor band conditions, large pile-ups and faint signals. The IC-7610 introduces dual RF sampling receivers that achieve 110db RMDR, enabling you to pick out faint signals in the presence of stronger, adjacent signals.

This dynamic HF/50 MHz transceiver sports the absolute latest technology, delivering superior receive and transmit performance and extremely low phase noise. Other features include:

- DIGI-SEL pre-selector for enhanced interference rejection
- Digital IF filter and digital twin PBT for interference rejection
- Customized VCXO (used by the master clock) that produces ultra-low phase noise
- External monitor connection with a DVI-D port
- Large 7-inch high-resolution (800 × 480 pixels) color display
- Optional SD card for saving user profiles and QSOs
- Newly designed large speaker box for superior sound quality
- Built-in high-speed automatic antenna tuner
- Long list of CW, receiver, transmitter and operational benefits

ICO-IC-7610 IC-7610 HF/50 MHz Transceiver ..... CALL/WEB
ICO-MB-121 Replacement Carrying Handle Kit for IC-7610 ..... $29.99
ICO-SP-41 IC-7610 Companion External Speaker $299.99
XYZ-32GB-SD 32 GB Ultra High Speed Memory Card $16.99

Accessory	Part Number	Description	ICO-IC-718	ICO-IC-7200	ICO-IC-7300	ICO-IC-7610	ICO-IC-7700	ICO-IC-7851	ICO-IC-7100	ICO-IC-9100
Antennas	ICO-AH-2B	Antenna Element with Base, Compatible AH2, AH3 and AH4	X	X	X	X			X	X
	ICO-AH-710	Folded Dipole	X	X	X	X				
	ICO-AH-740	Relay, Driven Compant Automatic Tuning Antenna, 1.6-29.999 MHz	X	X	X	X				X
Cables	ICO-OPC-1457	Power Cable, DC, 4-Pin, 9.8', ATO/ATC Inline Fuse Holder		X		X			X	X
	ICO-OPC-1529R	RS232 Type PC/GPS Cable							X	X
	ICO-OPC-2361	DC Power Cord, Same As Supplied	X		X	X				X
	ICO-OPC-510	AC Power Cable					X	X		
Control Cable Adapters	ICO-OPC-599	Accessory Port Y-Adapter, 13-Pin DIN Plug to 7-Pin and 8-Pin DIN Receptacles	X	X	X				X	X
	ICO-OPC-2321	Control Cable Adapter to 4-Pin Type for AH740	X	X	X					X
Filters	ICO-FL-430	Roofing Filter, 1st IF Stage, 6.0 kHz, 64.455 MHz IF								X
	ICO-FL-431	Roofing Filter, 1st IF Stage, 3.0 kHz, 64.455 MHz IF								X
Hand Mics	ICO-HM-36	Hand Microphone, Same as Supplied	X	X			X	X	X	X
	ICO-HM-219	Hand Microphone, Same as Supplied	X		X	X				
Level Converter	ICO-CT-17	Transceiver Level Converter, CI-V, RS232, Remote Jack Cables, Kit	X	X	X	X	X	X	X	X
Carrying Handle	ICO-MB-123	Transceiver Carrying Handle Kit			X					X
Remote Control	ICO-RC-28	Remote Control USB Encoder, with Tuning Knob and Transmit Button				X		X		

Call us for easy special orders!

ICOM IC-7300 HF/50 MHz Transceiver

The IC-7300 blends SDR and a traditional radio "box" to create a class-leading, highly affordable base/portable HF radio. It packs a ton of cutting-edge features, like a real-time band scope, excellent receiving performance characteristics and a large touchscreen display that allows touch-tuning on the spectrum scope. The IC-7300's new RF Direct Sampling System borrows SDR tech to replace the conventional superhetrodyne design with an RF Direct system. The result is a versatile and budget-friendly radio that delivers incredible receiver performance, easy filter adjustments and awesome audio clarity. The radio features an intuitive multi-dial knob and a built-in antenna tuner. It works on SSB, CW, RTTY, AM and FM modes. More importantly, Icom's engineers were still able to cram it all in a rugged and compact package—perfect for your portable or EMCOMM station. The IC-7300 provides the performance and features of an SDR, yet you still get the familiar tactile "feel" of radio knobs and buttons.

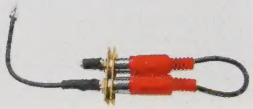
- Voice memory & memory keyer
- SD card slot
- 100 W (25 W AM)
- Multi-function meter
- Screen capture
- Digital noise reduction

Find the full details on the IC-7300 at DXEngineering.com.

ICO-IC-7300	HF/50 MHz Transceiver	CALL/WEB
ICO-MB-118	Mobile Mounting Bracket	$24.99
ICO-MB-123	Transceiver Carry Handle	$32.99
ICO-SP-38	Base Station Speaker	$174.99
XYZ-32GB-SD	32 GB Ultra High Speed Memory Card	$16.99

INRAD international radio

Receive-Only Antenna Jack for the IC-7300

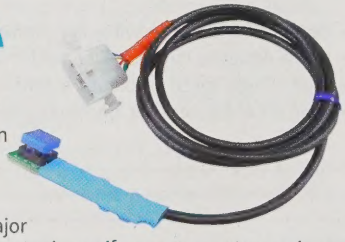


Though the Icom IC-7300 is a splendid radio out of the box, its lack of separate receive jack has discouraged some operators. InRad has come to the rescue with this easy to install (and reversible) modification. It adds a dedicated receive antenna jack that can also be used to add accessories into the signal path, like bandpass filters or a low noise preamp. When installed, the radio uses an SO-239 connector on transmit and an RCA phono jack to receive. To quickly revert to normal operation, simply install the included coax loop.

INR-RX7300	Receive-Only Antenna Jack for the IC-7300	$39.95

Click2Tune Transceiver Keying Switch

SB™



Here's fantastic news for anyone who uses an ICOM HF transceiver with an antenna tuner or amplifier. The innovators at SOTABeams have made it more convenient to send a low-power carrier for tuning purposes—a major annoyance if your antenna requires frequent retuning or if you use your transceiver with an amplifier. The Click2Tune Transceiver Keying Swith puts you in control by letting you transmit a low-power carrier without any need to change the mode, reduce power or press the PTT. The keying switch works with most ICOM transceivers with 4-Pin molex tuner connector, incuding IC-7300, IC-7100, IC-746 (ant. 1), and IC-9100 (ant. 1). It's available assembled or as a build-it-yourself kit.

SBM-CLICK2TUNEBT	Transceiver Keying Switch for ICOM Radios, Assembled;	$35.99
SBM-CLICK2TUNEKT	Transceiver Keying Switch for ICOM Radios, Kit	$18.99

ICOM Remotely Control Icom Transceivers Through an IP Network!

IP Remote Control Software

The IP Remote Control Software allows you to operate an Icom radio installed in another room using your home network or even from a remote location over the Internet. The software works with Icom IC-9100, IC-7800, IC-7700, IC-7600, IC-7610, IC-756PROIII, IC-746PRO, IC-7400, IC-7200, IC-7300, IC-7850LE, IC-7851 and IC-7000 transceivers. System requirements: Windows® XP (SP3), Vista or Windows® 7.

ICO-RS-BA1	IP Remote Control Software	$99.99

ICOM IC-7100 HF, VHF and UHF Transceiver

Icom gives you leading-edge technology in an attractive package with the IC-7100. Controlling the IC-7100 is easy and intuitive with an industry-first multi-function, dot-matrix LCD touch screen. The control head is angled to provide a clear view and the buttons are spaced to accommodate large fingers. For clear communications, there is a large speaker plus an integrated CW keyjack, microphone and control cable.

The IC-7100 provides D-STAR DV mode digital voice and low speed data communications with an optional module. It is also equipped with a state-of-the-art 32-bit floating point DSP. Find all of the specs on this groundbreaking transceiver at DXEngineering.com.

D-STAR ready

- Dual DSP chips deliver versatile digital processing performance
- Built-in SD card slot for voice storage and data cloning
- Built-in RTTY demodulator and decoder
- Multi-function meter/SWR graphic display
- DSP controller RF speech compressor
- 505 memory channels
- Voice recording and playback functions
- ±0.5 ppm high frequency stability

Included Accessories

- Hand microphone
- ACC, separation and DC power cable
- Electronic keyer and hand key plug

ICO-IC-7100	HF/VHF/UHF Digital Transceiver	CALL/WEB
ICO-MB-62	Mobile Transceiver Mounting Bracket, for IC-7100	$44.99
ICO-MBA-1	Mobile Transceiver Control Head Mounting Bracket	$39.99
ICO-MBF-1	Suction Mount, Use with MBA-1 Mounting Bracket	$79.99
ICO-CS-7100	Programming/Cloning Software	$49.99
ICO-OPC-589	Mic Adapter Cable, 8-Pin Modular to 8-Pin Round	$36.99

ICOM IC-9100 HF/VHF/UHF Transceiver

This workhorse, all-in-one transceiver provides sophisticated HF/VHF/UHF operation with room to grow. The IC-9100 covers almost every Ham band and mode and offers a wide variety of operating capabilites. Add the optional UX-9100 1200 MHz band unit and UT-121 D-STAR unit for increased communications capabilities.
Power Requirement: 13.8 Vdc @ 24A. Dimensions: 12.4" W x 4.57" H x 13.5" D.

- Covers HF/50, 144, 430/440 amateur bands in SSB, CW, AM, and FM modes
- Built-in voice synthesizer announces operating frequency, mode and S-meter level
- Voice Squelch Control (VSC) function
- AFC function (FM/DV mode)
- Five scanning modes: program, memory, select memory, mode select, Δf scan
- RF speech compressor
- Microphone equalizer and adjustable transmit bandwidth
- Two preamplifier types for HF/50 MHz bands (low-level and high-gain)
- CTCSS and DTCS tone encoder and decoder
- Audio equalizer function
- SSB/CW synchronous tuning
- 9600 bps data socket
- Automatic and one-touch repeater functions
- Optional 3 kHz/6 kHz filters
- Optional UX-9100 unit for operating on the 1200 MHz band
- Optional UT-121 D-STAR unit for digital voice and low speed data communication

ICO-IC-9100	HF/VHF/UHF Transceiver	CALL/WEB
ICO-UX-9100	1200 MHz Band Unit, Adds 1240-1320 MHz Capabilities	$689.99
ICO-UT-121	Plug-In Digital/GPS Module (included)	$159.99
ICO-CS-9100	Programming/Cloning Software	$59.99

ICOM *IC-7200 HF/50 MHz Transceiver*

Icom gives you high performance IF DSP technology in a package that's rugged enough for portable use. In fact, you'll find several features in the IC-7200 that don't typically appear on transceivers in this price range. This radio is simple to operate with an intuitive screen and straightforward controls. It's also built tough, employing the latest water intrusion safeguards for reliable use in the field. The front-firing speaker is handy in EMCOMM and makeshift installations, too. Icom makes several accessories that make it easy to take the IC-7200 into the field or install for mobile operation.

- CW, AM, SSB and RTTY
- Full break-in CW
- AGC loop management
- Digital twin passband tuning
- USB port for PC control
- Digital noise reduction
- RF speech compressor
- Digital IF filter
- High stability transmitter

ICO-IC-7200	HF/50 MHz Transceiver	CALL/WEB
ICO-MB-116	Transceiver Front-Mount Carrying Handles	$86.99
ICO-MB-117	Transceiver Top-Mount Carrying Handle	$29.99
ICO-MB-118	Mounting Bracket for Mobile Installation	$24.99

ICOM *IC-718 HF Base Station Transceiver*

The most practical DSP rig you'll ever own! It covers 160 to 10 meters (except 60 meter) in CW, RTTY and AM modes. Power Requirement: 13.8 Vdc @ 20A.
Dimensions: 9.4" W x 3.75" H x 9.4" D. Weight: 8.5 lbs.

- 5-100 watts adjustable output power
- 101 scannable memory channels
- IF shift control
- RF gain control, RF attenuator/preamp
- Electronic CW keyer, VOX voice operation
- High frequency stability
- Front facing speaker
- 2-40 watts AM
- 0.03-30 MHz RX coverage
- Mic compressor
- Auto-notch filter
- Digital S/RF meter
- Optional filter selection
- Hand mic included

ICO-IC-718	HF Base Station Transceiver	CALL/WEB
ICO-CR-338	High-Stability Crystal Unit, 32 MHz	$89.99
ICO-UT-106	Plug-In DSP Receive Module (Included)	$149.99
ICO-MB-23	Transceiver Carrying Handle Kit for IC-718	$19.99
ICO-OPC-025D	DC Power Cable, Inline Fuse Holder, Molex 6-Pin	$37.99

NiFty! Ham Accessories

Universal Wire Stand

Don't risk sliding your expensive portable/base radio onto the floor. If your radio has a folding wire loop-style stand, this stand will keep it secure. The stand features four anti-skid feet and three different cradle positions to hold your radio at the optimal viewing angle. It's compatible with the Icom IC-7300, IC-718, Elecraft K3, Yaesu FT-991, Alinco SR8T and many more.

NIF-DS-WB-UNIV	Universal Wire Stand	$20.95

ICOM *IC-7700 HF/50 MHz All Mode Transceiver*

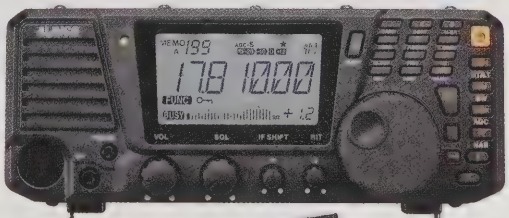
The top performance, contest and DX chasing transceiver! It features the latest updates including two independent IC-7800-type DSP units (one for the transmitter/receiver, one for the spectrum display).
Dimensions: 16.7" W x 5.9" H x 17.1" D. Weight: 52.9 lbs.

- 40 dBm third order intercept point
- Selectable 3, 6 and 15 kHz roofing filters
- Built-in switching power supply
- Built-in RTTY/PSK31 mode—requires only an external keyboard
- Typical 134 dB @ 5 kHz dynamic range
- Exceptional out-of-band signal rejection
- 7" color TFT (800 x 480 pixel) LCD
- Accepts external VGA monitor
- Automatic tracking preselector and relay-switched front end
- Push-pull 48 Vdc MOSFET amplifiers—200 watts at full duty cycle
- Rear-panel I/O allows interface of a second Icom transceiver
- Digital voice recorder, DSP noise blanker, USB flash drive socket

ICO-IC-7700	HF/50 MHz All Mode Transceiver	CALL/WEB

ALINCO *1.9-29 MHz All-Mode Desktop Transceivers*

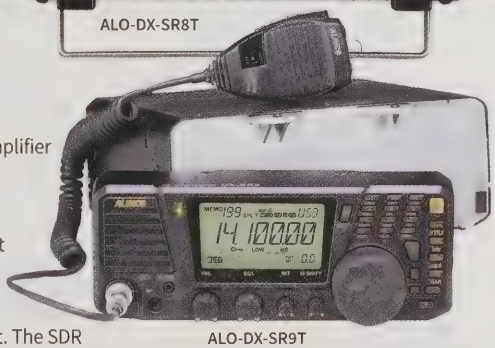
Covering the 160 to 10 meter bands (including 5.3 MHz), this is an excellent radio to build your HF station around. It puts out 100 watts in SSB/CW/FM, and 40 watts in AM. QRP operators will love the low and super low power settings. The DX-SR8T also boasts a receive range from 135 kHz to 30 MHz in all modes.



ALO-DX-SR8T

CW enthusiasts rave about the standard electronic keyer, and you can receive CW on the upper or lower sideband. The radio features a detachable front panel, which means it also works quite well in a mobile or marine application.

- IF shift to fight QRM
- Enhanced scan mode
- Step attenuator and preamplifier
- 600 memories in 3 banks
- CTCSS encoding for 10M repeaters
- High SWR protection circuit



ALO-DX-SR9T

This "hybrid" DX-SR9T radio takes all the features of the DX-SR8T, and then adds a software-defined counterpart. The SDR system in the DR-SR9T/E is Windows compatible. To ensure you're comfortable with the software, Alinco will let you download and test it for free. Visit Alinco.com for the link.

ALO-DX-SR8T	1.9-29 MHz All-Mode Desktop Transceiver	CALL/WEB
ALO-DX-SR9T	1.9-29 MHz All-Mode Desktop/SDR Transceiver	CALL/WEB

ALINCO

Accessory	Part Number	Description	ALO-DX-SR8T	ALO-DX-SR9T
Cables	ALO-ERW-4C	PC Interface, Serial	x	x
	ALO-ERW-7	PC Interface, USB	x	x
Front Panel Kit	ALO-EDS-17	Front Panel Remote Mounting Kit	x	x
Hand Mic	ALO-EMS-64	Mobile Hand Microphone	x	x
Mic Hanger	ALO-EBC-7	Universal Fit Speaker-Mic Hanger	x	x
Remote Controller	ALO-EDS-12	Wire Remote Controller	x	x

KENWOOD

TS-990S HF/6 Meter Base Transceiver

Kenwood calls the TS-990S its ultimate 200 watt contest/DX transceiver because it achieves the best reception performance of any radio in Kenwood's legendary TS series. It's equipped with dual receivers for simultaneous reception on two different bands. The radio incorporates narrow-band high-IP roofing filters, a newly developed mixer circuit, and a built-in antenna tuner to deliver uncompromised performance. Advanced AGC control perfectly fuses analog and digital reception. The TS-990S also features Kenwood's Sky Command II system for full duplex communications. Find more specs at DXEngineering.com.

KWD-TS-990S HF/6 Meter Base Transceiver ..... **CALL/WEB**

KENWOOD

TS-590SG HF/6 Meter Base Transceiver

Designed for the most demanding DX and contest operators, Kenwood's TS-590SG 100 watt transceiver boasts highly-reliable transmit outputs to deliver an exceptionally good transmit signal.

The 100 watt TS-590SG has the best receive dynamic range in its class versus off-frequency interference. It features a 32-bit floating DSP, a built-in automatic antenna tuner, beat cancel and CW auto tune. USB and serial DB-9 ports make connection to a PC easy. The radio comes with Kenwood's Control Software and Radio Host Program for VOIP operation.

KWD-TS-590SG HF/6 Meter Base Transceiver ..... **CALL/WEB**

KWD-TS-480SAT

KENWOOD

TS-480HX and TS480SAT All Mode Transceivers

Equally at home in a base or mobile installation, Kenwood's TS-480 series gives you 160-6 meter coverage in a compact package. These are great radios if you're primarily an HF operator. The separated control panel with built-in speaker means that you've got plenty of mounting options. The TS-480 series operates PSK 31, SSB, CW, FSK, FM and AM modes.

The key difference between the two radios is that the TSW-480HX packs 200 watts, while the TS-480SAT is 100 watts and features a built-in antenna tuner.

KWD-TS-480HX	All Mode Transceiver, 200 Watts	**CALL/WEB**
KWD-TS-480SAT	All Mode Transceiver, 100 Watts, Antenna Tuner	**CALL/WEB**
KWD-MJ-88	Mic Interface Cable, RJ45 to 8-Pin Round Receptacle	**$29.99**
KWD-YF-107C	Crystal Filter, 500 Hz	**$119.99**
KWD-YF-107CN	Crystal Filter, 270 Hz	**$119.99**
KWD-YF-107SN	Crystal Filter, 1.8 kHz	**$119.99**
KWD-MB-480M	Carrying Bracket with Handle	**$46.99**

KWD-TS-2000

KENWOOD

TS-2000 HF/VHF/UHF Transceivers

The TS-2000 is an excellent foundation to build your station around because of its incredible 160M-70cm coverage range. In fact, the TS-2000X adds Kenwood's UT-20 module to cover all the way up to 1300 MHz! You'll get 100/25 watts max./min. power on most bands. The TS-2000 operates CW, SSB, FSK, AM and FM modes. This radio also boasts a built-in 9600/1200 bps TNC for DX Packet Cluster Tune and Kenwood's Sky Command II Plus control. Visit DXEngineering.com for all the specs.

KWD-TS-2000	HF/VHF/UHF Transceiver	**CALL/WEB**
KWD-TS-2000X	HF/VHF/UHF/1.2 GHz Transceiver	**CALL/WEB**
KWD-ARCP-2000	PC Control/Programming Software, CD-ROM	**$76.99**
KWD-DRU-3A	Plug-In Module, Digital Voice Recorder Board, 3 Channels	**$128.99**
KWD-PG-2Z	DC Power Cable, Molex 6-Pin to Bare Wire	**$37.99**

KENWOOD

Accessory	Part Number	Description	KWD-TS-480HX	KWD-TS-480SAT	KWD-TS-590SG	KWD-TS-990S	KWD-TS-2000	KWD-TS-2000X
Bracket	KWD-MB-430M2	Mobile Mounting Bracket Kit			x		x	x
Cable	KWD-PG-20	DC Power Cable, Molex 4-Pin to Bare Wire, 2 Inline Fuse Holders	x	x	x			
Speaker Microphones	KWD-MC-47	Hand Mic, Function Buttons, 8-Pin Plug	x	x	x		x	x
	KWD-MC-43S	Hand Mic, PTT Switch, 8-Pin Plug	x	x	x	x	x	x
Voice Synthesizer	KWD-VS-3	Plug-In Module, Voice Synthesizer	x	x	x		x	x
Voice Guide	KWD-VGS-1	Plug-In Module, Voice Synthesizer and Recorder	x	x	x			
TCXO Unit	KWD-SO-3	Plug-In Module, TCXO Unit	x	x	x			

DX Engineering Super Card

Build your dream station with the best gear. Use your DX Engineering Super Card. Take advantage of deferred interest payment options. Get the Card, Get the Gear, Get on the Air. Find all the terms and conditions of the DX Engineering Super Card at DXEngineering.com.

TS-890S HF/50 MHz Transceiver Reservation

Make DX Engineering your choice to place your risk-free** reservation for the exciting new TS-890S HF/50 MHz Transceiver introduced at Dayton Hamvention 2018 by the base station innovators at Kenwood. It boasts similar functionality and high-end specs as the TS-990S, without a second receiver. Anticipated features include:

- 160-6 meters 100W all modes with built-in antenna tuner
- 7 inch color TFT touch display with auto-scroll band-scope and multipurpose display
- Animated meter display toggles between TS-930 meter and TS-940 meter at a touch!
- Full down-conversion superheterodyne
- Extra-low phase noise local oscillator
- Built-in roofing filters, 15 kHz, 6 kHz, 2.7 kHz, and 500 Hz (270 Hz optional)
- IF output for external receiver display
- Visit DXEngineering.com as more details become available

Your reservation fee will be applied to the total Kenwood TS-890S purchase price at sale completion. When the radios become available, orders for the TS-890S will be shipped in the order that reservations were received.

KWD-TS-890S HF/50 MHz Transceiver ..... **Pending FCC Approval**

***When these new transceivers become available you will be entitled to a first right of refusal on a first come, first served basis. Once these transceivers have received FCC Type Certification and are offered for sale by Kenwood, with officially announced pricing, you will be contacted by DX Engineering to complete your order. Should you choose not to complete your TS-890S order, your non-refundable deposit will be converted to a Gift Card that you can use toward any product offered by DX Engineering.*

YAESU

2M/70cm C4FM Digital Dual-Band Transceiver

Building on the already capable FTM-100DR, the first thing you'll notice about this radio is its massive touchscreen display. The screen can be adjusted to display a band scope, frequency, APRS® information, smart navigation and altitude. This radio replaces Yaesu's popular FTM-400D, offering improved GPS and APRS functions. What really makes this radio unique is its ability to digitally transmit and receive images. You can even take your own pictures using the optional speaker microphone with camera; a Micro SD card is also required. The radio's touchscreen/control panel detaches to allow for easy mounting inside a vehicle.

YSU-FTM-400XD 2M/70cm C4FM Digital Dual-Band Transceiver ..... **CALL/WEB**

YSU-MH-85A11U Speaker Mic with Snapshot Camera **$139.99**

YAESU

2M/70cm C4FM Digital Dual-Band Transceiver

Here's an economical way to take advantage of Yaesu's System Fusion technology and start operating digitally. Operating in one of three digital modes (voice/data, full voice, or full data) opens up a ton of digital capabilities. Sketchy signal strength? Switch over to a traditional analog FM mode and you're good to go. The FTM-100DR has a built-in GPS unit/logger with APRS® functionality standard. Use the radio's digital group monitor function and you'll know when "checked-in" members are within TX/RX range—it's a valuable feature for large group activities and search-and-rescue ops.

The radio packs up to 50 watts of operating power, plus an extended receive range for added versatility. The 500 memory channels are stored on a Micro SD card, which simplifies the cloning and data transfer process.

YSU-FTM-100DR 2M/70cm C4FM Digital Dual-Band Transceiver ..... **CALL/WEB**

YAESU

FTM-3200DR 2 Meter and FTM-3207 70cm C4FM/FM Digital, Plus FTM-3100R 2 Meter Mobile Transceivers

Compact and durable, the 65 watt FTM-3200DR and 55 watt FTM-3207DR operate in C4FM digital modes, including voice/data split, voice full rate and data full rate modes, plus traditional analog FM.

The radios incorporate Yaesu's System Fusion technology, including the handy Automatic Mode Select function. Using AMS, they will detect whether an incoming signal is digital or analog, and automatically switch to that format for a seamless transition between operating modes.

The display is intuitive, with an color-changing LED indicator to show the signal mode being used, blue (digital) or green (analog). The radios also take advantage of System Fusion's Digital Group Monitor capability, which alerts you if other registered members are within range.

If you don't need C4FM digital capability, Yaesu offers the FTM-3100R. It's an attractive alternative for operators who are looking for a feature-laden analog FM 2 meter mobile.

YSU-FTM-3200DR 2M C4FM/FM Digital Mobile Transceiver ..... **CALL/WEB**

YSU-FTM-3207DR 70cm C4FM/FM Digital Mobile Transceiver ..... **CALL/WEB**

YSU-FTM-3100R 2M FM Analog Mobile Transceiver ..... **CALL/WEB**

FT-2980R 80W 2M FM Mobile Transceiver

This rugged, compact and economical radio is ideal for mobile or portable stations. At 80 watts, the new FT-2980R adds extra transmit power over the venerable 75W FT-2900R. Even at those output levels, the radio requires no fan—robust heat sinks easily handle the power. Three watts of audio output make it easy to hear in noisy environments too.

An intuitive smart scan function means it's simple to find activity, while the alphanumeric display has four brightness levels for use in a mobile station. In addition to the extended 136-174 MHz receive range, this mobile radio gets the NOAA weather channels with severe weather alerts. It's also equipped with Yaesu's handy dual watch feature, which allows you to operate on a VFO, Memory channel, or Home channel, while periodically checking a user-defined Memory Channel for activity.

YSU-FT-2980R 80W 2M FM Mobile Transceiver ..... **CALL/WEB**

YAESU

FTM-7250DR C4FM/FM 144/430MHz Dual Band 50W Transceiver

Ruggedly built and loaded with features, the Yaesu FTM-7250DR VHF/UHF Mobile Transceiver incorporates the latest Yaesu offers for the System Fusion II platform. Take advantage of its Automatic Mode Select function that recognizes signals as either C4FM or conventional FM; sophisticated Digital-Group-ID operation and memory (up to 10 DG-ID pairs with alpha-numeric tags); 225 memory channels; true 50 watts (VHF and UHF) transmitter; high-stability ±2.5 ppm TCXO; wideband receive for 108MHz – 579.995 MHz; clear and powerful audio with front speaker; keyboard entry of operating frequencies from the microphone; and more. Pending FCC approval.

YSU-FTM-7250DR C4FM/FM Dual Band 50W Transceiver ..... **CALL/WEB**

YAESU

Accessory	Part Number	Description	YSU-FTM-100DR	YSU-FTM-400XD
Adapter Unit	YSU-BU-2	Bluetooth® Adapter Unit	x	x
Bracket	YSU-MMB-98	Controller Mounting Bracket	x	x
Cables	YSU-CT-164	Data Cable, 10-Pin Mini-DIN to 6-Pin Mini-Din	x	x
	YSU-SCU-20	PC Connection Cable & Software	x	x
	YSU-MEK-2	Mic Extension Cable	x	x
Voice Guide Unit	YSU-FVS-2	Voice Operating Guide Unit	x	x
Cooling Fan	YSU-SMB-201	Mobile Transceiver Desktop Cooling Fan	x	x

More accessories available at DXEngineering.com.

Visit DXEngineering.com for the latest limited-time offers and special savings!

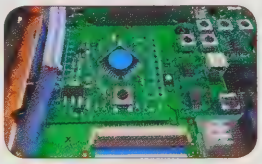
YAESU

6W HF/VHF/UHF All Mode Portable Transceiver

Small but mighty, the brand-new FT-818 from Yaesu is a self-contained, battery-powered, multi-mode portable transceiver covering the HF, VHF and UHF bands. It comes with many of the popular features of the discontinued FT-817ND with some significant upgrades, including larger battery capacity (9.6v/1900mAh); built-in TCXO-9 oscillator for exceptonal frequency stability (+/-0.5ppm); increased power from 5 to 6W (SSB, CW, FM), 2W (AM Carrier); and the addition of 5MHz band (WRC-15 + UK frequency) operation. Make it your multipurpose companion for all your adventures in the great outdoors, whether you're operating SSB, CW, AM, FM, Packet, or SSB-based Digital modes like PSK31. This versatile QRP rig covers 160-10 meters (including 60M), plus 6M, 2M and 70cm. It features a next-generation power amplifier that puts out six watts on all HF bands, plus the 50 MHz, 144 MHz, and 430 MHz bands. Receive coverage includes shortwave/FM broadcast, along with government and aircraft bands. It has dual VFOs, split frequency operation, IF shift, IF noise blanker, easy-to-read multicolor LCD, 208 memory channels, built-in electronic keyer and spectrum scope, plus a front-panel BNC connector for adding a whip. It comes with hand mic, battery, battery case, whip antenna, DC cable, shoulder strap, ferrite core, rubber foot, operating manual and battery charger.

YSU-FT-818	All-Band Multi-Mode Mobile/Portable QRP Transceiver;	**CALL/WEB**
YSU-SBR-32MH	Battery Pack for FT-818	**$119.99**
YSU-PA-48C	AC Adapter/Charger	**$29.99**

LASERBEAM Audio Filter Module for the Yaesu FT-817



This 2-in-1 digital filter effectively eliminates QRN to give you improved SSB and CW performance. The module installs with minimal soldering and no significant chassis modifications.

SBM-LASERBEAM817	LASERBEAM Audio Filter for FT-817	**$62.99**

Click2Tune Easy Tuning Dongle for Yaesu FT-817, FT-818, FT-857 and FT-897

For Yaesu transceiver owners, the Hams at SOTABeams have made sending a carrier for tuning a snap, whether in the shack or out in the field. The Click2Tune Easy Tuning Dongle makes the tuning process much easier, without the need to change mode and press multiple keys. This tiny dongle contains a sophisticated microprocessor that plugs into the back of your radio. Once set up, tuning just requires a double click of the microphone PTT switch to send a carrier. Voila! Tuning made simple. The Click2Tune allows you to select the tuning mode, so you can tune the FT-857 and FT-897 at lower power (25 watts), a valuable feature for protecting auto-tuners. Best of all, the same dongle works with the FT-817, FT-818, FT-857 and FT-897.

SBM-C2T-817-818	Click2Tune Dongle for FT-817/818/857/897	**$34.99**
SBM-PEGLEG817818	Peg Legs for FT-817/818	**$24.99**
SBM-PP-817-818	DC Powerpole® Adapter for FT-817/818	**$34.99**

Speech Compressors

Available as an easy-build kit or assembled, these speech compressors for Yaesu FT-817/FT-818, FT-857, FT-897, FT-900, and FT-450 let you unleash your DX potential. Use these plug-and-play devices to raise the average level of your audio signal, providing punch to the radio's SSB speech power with an apparent improvement of up to 6 dB. The compression level is adjustable, and modifications to your microphone or transceiver are not required. The compressors include a tuning tone feature useful for adjusting tuners and antennas.

SBM-SPCH-COMP-BT	Speech Compressor for FT-450/817/818/857/897/900, Assembled	**$71.99**
SBM-SPCH-COMP-KT	Speech Compressor for FT-450/817/818/857/897/900, Kit	**$54.99**

YAESU

Accessory	Part Number	Description	YSU-FT-8900R	YSU-FT-7900R
Bracket	YSU-MMB-60	Mobile Mounting Bracket	x	x
Cables	YSU-CT-39A	Packet Cable, 6-Pin DIN to Stripped Leads	x	x
	YSU-MEK-2	Mic Extension Cable	x	x
Cooling Fan	YSU-SMB-201	Mobile Transceiver Desktop Cooling Fan	x	x
Separation Kit	YSU-YSK-8900	Separation Kit, with Bracket and Cable	x	

YAESU

Quad-Band Mobile FM Transceiver

Take an already impressive 2M/70cm radio, and then add TX/RX on 10 and 6 meters! The rugged FT-8900R is a great option for operators who live away from reliable repeater networks and need the 10 meter band. You'll also get Yaesu's WiRES-II™ VoIP Internet Linking system capability. The radio is packed with features like 50 watts of output power, cross-band repeat and over 800 memory channels. Using dual receive VHF+UHF full duplex functionality, the FT-8900R can essentially be set up as two radios in one, using one "side" of the radio for 10 and 6 meters, and the other for VHF/UHF.

YSU-FT-8900R	Quad-Band Mobile FM Transceiver	**CALL/WEB**

YAESU

WiRES High Performance Digital and Analog Internet Linking Interface

This interface transforms RF communications to VoIP format, enabling long distance digital contact. WiRES is compatible with C4FM digital stations, plus traditional analog FM operation. You simply plug in to any Yaesu radio on the network and go without need for complicated router settings. It comes with all cables and set-up software. Read more about this system at DXEngineering.com.

YSU-HRI-200	WiRES High Performance Digital and Analog Linking Interface	**$124.99**

YAESU

All-Band Multi-Mode Mobile Transceiver

This robust transceiver gives you up to 100 watts of output power, depending on the band and mode you're using. This FT-857D uses cutting-edge DSP technology to offer base station performance in a package small enough to fit in your dashboard or backpack. This transceiver's impressive list of features and capabilities has made it a popular choice for EMCOMM stations and remote portable operation.

When used with a compatible amplifier and data cable, you can take advantage of Yaesu's Quadra System. Your radio will send band switching data directly to the amplifier for quick, seamless operation.

YSU-FT-857D	All-Band Multi-Mode Mobile Transceiver	**CALL/WEB**
YSU-YSK-857	Remote Mounting Kit	**$79.99**
YSU-MH-59A8J	Remote Control Hand Mic	**$84.99**
YSU-CT-58	Quadra System Band Data Cable	**$37.99**
YSU-ATAS-120A	Auto Active Tuning Antenna	**$389.99**
YSU-ATBK-100	Antenna Base Kit for ATAS-120A	**$99.99**

YAESU

Accessory	Part Number	Description	YSU-FT-857D	YSU-FT-817ND	YSU-FT-818
Antenna	YSU-ATAS-25	40M-70cm Micro Manually Tuned Portable Antenna	x	x	x
Microphone	YSU-MH-36E8J	Hand Mic, DTMF	x	x	x
Filters	YSU-YF-122C	Filter, CW, 500 Hz Bandwidth, 455 kHz IF	x	x	x
	YSU-YF-122CN	Filter, CW, 300 Hz Bandwidth, 455 kHz IF	x	x	x
	YSU-YF-122S	Filter, SSB, 2.3 kHz Bandwidth, 455 kHz IF	x	x	x
Cables	YSU-CT-62	CAT Interface Cable	x	x	x
	YSU-CT-39A	Packet Cable, 6-Pin DIN to Stripped Leads	x	x	x
Crystal Oscillator	YSU-TCXO-9	TCXO High Stability Reference Oscillator, .5 ppm	x	x	
Interface Unit	YSU-SCU-17	USB Interface Unit, with Hookup Cables	x	x	x

YAESU

HF/6M All Mode Portable Transceiver

Portable and mobile operators rejoice! The all-new FT-891 gives you HF and 6 meter coverage plus 100 watts of transmit power. A high speed 32 bit DSP successfully mitigates QRM, and the FT-891's circuit design and 3 Khz roofing filter boasts Yaesu's legendary performance. The large screen and intuitive controls make the radio easy to operate. The FT-891 is rugged and compact, with a detachable faceplate for use in the field or in a vehicle.

YSU-FT-891	HF/6M All Mode Portable Transceiver	CALL/WEB

ICOM

ID-4100A VHF/UHF Dual Band Digital Transceiver

The ID-4100A provides Terminal and Access Point Modes enabling you to access the D-STAR repeater network through the Internet, regardless of repeater locations. That's a handy feature to have if you do a lot of road-tripping to new areas. The receiver covers 118–174 and 230–550 MHz, plus air band, marine traffic, weather channels and other VHF and UHF public safety and utility communications.

It packs 50 watts, with selectable power steps. Smartphone compatibility and an optional Bluetooth® module (UT-137) enable even more functionality. With an excellent combination of features and price, the ID-4100A is a smart way to get active with D-STAR digital radio.

ICO-ID-4100A	VHF/UHF Dual Band Digital Transceiver	CALL/WEB
ICO-HM-207S	Mobile Hand Microphone with DTMF Keypad	$139.99
ICO-HM-209	Noise Cancelling Mobile Hand Microphone	$144.99
ICO-HM-232	Basic Mobile Hand Microphone	$44.99
ICO-MBA-8	Mobile Transceiver Mounting Bracket	$39.99
ICO-UT-137	Plug-In Bluetooth® Module	$98.99

ICOM

IC-2300H 2M Single Band Mobile Transceiver

Covers 144-148 MHz transmit with 136-174 MHz receive. Large selectable (amber or green) LCD display with four levels of brightness, backlit keys and a large oversized tuning dial. It includes a remote control microphone, DC power cable and mobile mounting bracket. Power Requirement: 13.8 Vdc @15A Dimensions: 5.5" W x 1.6" H x 5.25" D. Weight: 2.75 lbs.

- 50 CTCSS and 104 x 2 DTCS encode/decode, tone scan function, pocket beep
- Selectable transmit power levels: 65/25/10/5 watts
- 207 alpha tag memories w/call channel
- 24 DTMF autodial memories
- Choice of FM Narrow mode
- Dynamic Memory Scan
- Squelch delay

ICO-IC-2300H	2M Single Band Transceiver	CALL/WEB
ICO-CS-2300H	Cloning Software for IC-2300H	$79.99
ICO-MB-28H	Mobile Mounting Bracket	$28.99

ICOM

Accessory	Part Number	Description	ICO-IC-2300H	ICO-IC-2730A	ICO-ID-5100A-D	ICO-ID-4100A
Bracket	ICO-MBF-1	Switch Mount for Control Head		x	x	x
Cables	ICO-OPC-1132	Power Cable, DX, T-Style 2-Pin, 9.8'	x		x	
	ICO-OPC-1156	Remote Separation Cable, 11.5'		x	x	x
	ICO-OPC-478UC	PC to Radio Programming Cable, USB	x	x	x	x
	ICO-OPC-589	Microphone Adapter Cable, 8-Pin Modular Plug to 8-Pin Round Receptacle	x	x	x	
Mount Bracket	ICO-MBF-4	Mobile Transceiver Mounting Bracket		x	x	x
Bluetooth® Headsets	ICO-VS-3	Bluetooth Headset		x	x	x
	ICO-UT-133	Bluetooth Plug-In Module		x	x	

ICOM

ID-5100A-D Digital Transceiver

Icom's cutting-edge ID-5100A-D Digital Transceiver has launched a new generation of Icom radio design. It features a large touchscreen LCD, optional Bluetooth® connectivity and second station control through an Android device.

The ID-5100A is a 50 watt D-STAR 2M/70cm mobile radio with a built-in GPS device, along with a CTCSS/DTCS encoder and decoder. The radio uses Icom's Dualwatch technology, and includes independent VHF/UHF band units, a built-in GPS engine and 1,000 memory channels. New deluxe model includes MBA-2 control bracket.

To add Bluetooth functionality to the Icom ID-5100, install the optional Plug-In Module.

It works with the special Icom VS-3 headset to let you link your radio with Bluetooth enabled devices (like a car's infotainment system). This is a particularly handy feature if you live in a state that requires hands-free mobile communication.

The headset has a TX/RX switch, a PTT switch, plus three programmable buttons. A USB charging cable is included.

ICO-ID-5100A-D	D-STAR Deluxe 2M/70cm Digital Transceiver	CALL/WEB
NIF-ID-5100STAND	Stand for Icom ID-5100	$26.95
ICO-MBA-2	Mounting Bracket	$39.99
ICO-CT-17	Level Converter	$139.99
ICO-OPC-2218LU	PC Control Programming Cable, USB A Plug, to USB Mini, to Stereo 2.5mm Plug	$69.99
ICO-OPC-1529R	PC Control Programming Cable, RS-232, Stereo 2.5mm Male Plug	$32.99

ICOM

IC-2730A VHF/UHF FM Transceiver

Icom's IC-2730A is a full-feature 50 watt dual-bander with a built-in duplexer, so you can use a single dual-band antenna to operate on both 2M and 70cm. The radio also boasts simultaneous VHF/VHF, UHF/UHF and VHF/UHF receive capabilities and 2 external speaker outputs. It uses CTCSS/DTCS tones for quiet stand by and repeater access. That makes this radio easy to use as a mobile or base station. Air band and weather band (with WX alert) coverage adds to the IC-2730A's versatility.

- Cross band repeater capability
- Free programming software
- Sub band auto mute function
- Auto repeater function
- Large, easy-to-read display with intuitive controls

This radio comes with a remote control microphone, a controller cable, a mic hanger and DC power cable.

ICO-IC-2730A	VHF/UHF FM Transceiver	CALL/WEB
NIF-IC-2730STAND	Nifty Desk Stand for IC-2730A Control Head	$26.95
ICO-MB-2730B	Mobile Transceiver Mounting Control Head Attachment Bracket, Includes MBA-4 and MBF-4	$84.99
ICO-MB-2730R	Mobile Transceiver Mounting Control Head Attachment Bracket, Includes MBA-5 and MBF-4	$64.99
ICO-MB-2730R1	Mobile Transceiver Mounting Control Head Attachment Bracket, Includes MBA-5, MBF-1, and MBF-4;	$148.99
ICO-MBA-4	Control Head Reattachment Bracket, for IC-2730A	$64.99
ICO-MBA-5	Suction Cup Mounting Base	$39.99

KENWOOD

TM-D710G 144/440 MHz Dual-Band Mobile

With APRS standard, Kenwood's TM-D710G 2M/70cm radio is an excellent choice if you want a high performance portable digital transceiver. This true dual-band radio permits VHF+VHF, UHF+UHF and UHF+VHF operation. The TM-D710G packs 50 watts into a compact unit, and the detached control head makes it easy to install in a vehicle. The radio's EchoLink® functionality and built-in GPS make the TM-D710G an invaluable tool for hilltopping and EMCOMM duty. Power output is selectable from 5-50 watts.

KWD-TM-D710G 144/440 MHz Dual-Band Mobile ..... **CALL/WEB**

KENWOOD

TM-281A 2 Meter Mobile Transceiver

With a no-nonsense design and intuitive controls, the TM-281A is easy to install and easier to use. The 2M radio supplies 65 watts of power from 144-148 MHz, and it can be stepped down to 25 watts to avoid creating RFI. An extended 136-174 MHz receive range increases the radio's versatility. The radio is bundled with Kenwood's rugged speaker mic with backlit keys. A front-firing speaker makes this radio right at home in your vehicle.

KWD-TM-281A 2 Meter Mobile Transceiver ..... **CALL/WEB**

KENWOOD

TM-V71A Dual-Band Transceiver

Packed with features like EchoLink® Sysop mode/memory, multiple scan functions, 1,000 memories, and dual-receive capability, the TM-V71A is a user-friendly mobile if you're a 2M/70cm operator. A weather alert function is very handy for SKYWARN duties, or if you cover a lot of highway. This radio is also compatible with ARRL's Travel Plus software. The front control panel can detach from the radio's housing to open up more installation options.

KWD-TM-V71A Dual-Band Transceiver ..... **CALL/WEB**

KWD-DFK-3DW Mounting Bracket and Separation Cable **$45.99**

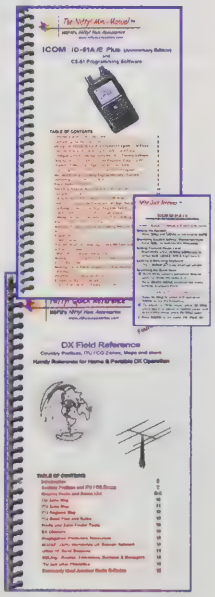
KENWOOD Accessory	Part Number	Description	KWD-TM-281A	KWD-TM-D710G	KWD-TM-V71A
Adapter	KWD-MJ-88	Mic Interface Cable, RJ45 to 8-Pin Round Receptacle	x	x	x
Cables	KWD-PG-5F	Separation Cable Kit, DC Power Cable, Modular Cables, Filters		x	x
	KWD-PG-2N	DC Power Cable, T-Style, 2-Pin, 2 Inline Fuse Holders	x	x	x
Noise Filter	KWD-PG-3B	Filter, Fits Between Vehicle Battery and Mobile Radio	x	x	x
Speaker Microphone	KWD-MC-59	Mobile Mic, 8-Pin Modular Plug	x	x	x
Voice Guide	KWD-VGS-1	Plug-In Module, Voice Synthesizer and Recorder		x	x
Voice Synthesizer	KWD-VS-3	Plug-In Module, Voice Synthesizer		x	x

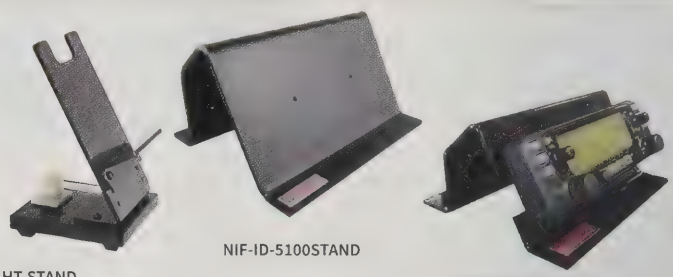
Mini-Manuals and Quick Reference Cards for Mobile Radios

Nifty! Ham Accessories

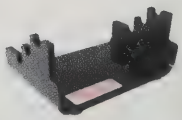
Due to their size, mobile transceivers often incorporate a lot of menus and very few physical controls, which means there's always a bit of a learning curve if you're looking at a new radio. Nifty Mini-Manuals and Quick Reference Cards ensure that you'll get up to speed quickly.

Part Number	Brand	Model	Price
Mini-Manuals			
NIF-MM-DR635	Alinco	DR-635T	$19.95
NIF-MM-IC2730	Icom	IC-2730A	$16.95
NIF-MM-ID4100A-E	Icom	ID-4100	$25.95
NIF-MM-ID5100	Icom	ID-5100A	$25.95
NIF-MM-ID880H	Icom	ID-880H	$22.85
NIF-MM-TMD710G	Kenwood	TM-D710G	$22.95
NIF-MM-TMV71A-E	Kenwood	TM-V71A/E	$18.85
NIF-MM-FTM100DR	Yaesu	FTM-100DR	$22.85
NIF-MM-FTM400DR	Yaesu	FTM-400DR/DE	$22.85
NIF-MM-FTM3200DR	Yaesu	FTM-3200DR	$16.95
NIF-MM-FTM400XDR	Yaesu	FTM-400XDR	$24.95
NIF-MM-FT2900R	Yaesu	FT-2900R	$16.95
NIF-MM-FT1900R	Yaesu	FT-1900R	$16.95
NIF-MM-FT70DR	Yaesu	FT-70DR	$18.95
NIF-MM-FT7900R	Yaesu	FT-7900R	$16.95
NIF-MM-FT817ND	Yaesu	FT-817/ND	$16.95
NIF-MM-FT857D	Yaesu	FT-857/D	$16.95
NIF-MM-FT8900R	Yaesu	FT-8900R	$16.95
NIF-MM-FT891	Yaesu	FT-891	$20.95
NIF-MM-FT8800R	Yaesu	FT-8800R	$16.95
Quick Reference Cards			
NIF-QR-FT65R	Yaesu	FT-65R	$6.95
NIF-QR-TM271-281	Kenwood	TM-271/281A/E	$6.95





NIF-HT-STAND NIF-ID-5100STAND NIF-IC-2730STAND



NIF-DS-WB-UNIV

Nifty! Ham Accessories

Desk Stands

These stands from Nifty have a heavy steel base to keep your radio and its front panel safe and secure on your desktop. The proper stand will also position the controls right where you want them. The HT stand's shelf is adjustable to fit most handhelds with a belt clip. Nifty also has several model-specific stands, see list below.

NIF-HT-STAND HT Radio Desk Stand **$35.85**
NIF-ID-5100STAND Stand for Icom ID-5100 ..... **$26.95**
NIF-IC-2730STAND Stand for Icom IC-2730A **$26.95**
NIF-FTM400DRSTAN Stand for Yaesu FTM-400DR **$24.95**
NIF-DS-KX2 Stand for Elecraft KX2 ..... **$26.95**
NIF-KX3-STAND Stand for Elecraft KX3 ..... **$25.95**
NIF-PX3-STAND Stand for Elecraft PX3 Add-On **$24.95**

Universal Desk Stand

NIF-DS-WB-UNIV Desk Stand, Universal Wire Bale, Designed to Fit Any Radio That Has a Foldable Wire Stand..... **$20.95**

ALINCO

DR-B185HT VHF Mobile/Base Transceiver

Boasting up to 85 watts of RF power, Alinco's new DR-B185 lets you practically own the 2 meter band. And it comes in a tiny package, which means you won't have trouble fitting it in your vehicle or on your desktop. The radio is intuitive, easy to use and delivers excellent audio response.

- Comprehensive scanner function
- Wide and narrow FM modes
- 500 memory channels
- High and low power settings
- 39-tone CTCSS/DCS/2-tone encode and decode
- Tone-burst and auto-dialer

An optional cloning cable is available to make programming the radio quick and straightforward.

ALO-DR-B185HT VHF Mobile/Base Transceiver ..... **CALL/WEB**

ALINCO

2M/70cm Mobile Transceiver

This versatile new radio from Alinco supports full duplex for true dual-band functionality and cross-band repeat. The DR-735 packs a wide range of adjustable parameters, from RF output to LCD screen color. The detachable controller allows for easy installation, while the heavy-duty base unit features plenty of integrated heat sinks for stability and long-term durability. It also boasts wide and narrow ceramic filters for narrow band operation. Find up-to-date specs at DXEngineering.com.

ALO-DR-735T	2M/70cm Mobile Transceiver	**CALL/WEB**
ALO-EDS-30	Front Control Unit Separation Cable Kit	**$54.99**
ALO-EDS-8	Microphone Adapter for EMS-14 Desk Mic	**$29.99**
ALO-EMS-79	DTMF Hand Mic	**$67.99**

ALINCO

DR-03T and DR-06T VHF FM Transceivers

The new DR-03T and DR-06T build upon Alinco's legendary series of mobile radios. They're loaded with features that you don't often find in this price range.

- 100 memory channels
- Theft alarm feature
- Ten autodial memories
- 7 character alphanumeric display
- Wide and narrow FM modes
- CTCSS, DCS encode and decode, DTMF encode and tone-burst

Packing 10 watts of RF power, the DR-03T is an excellent choice for mobile 10M operation. The DR-06T is a 6M radio with 50 watts of output. The DR-06T's optional EJ-41U TNC board permits 1200/9600 bps digital packet operation. The DR-06T also has a handy front panel data port and rear panel DSUB9 computer connection. The radios come with Alinco's commercial-grade backlit microphone with a metal connector.

ALO-DR-03T	10M VHF FM Transceiver	**CALL/WEB**
ALO-DR-06T	6M VHF FM Transceiver	**CALL/WEB**

ALINCO

Monoband Mobile/Base Transceivers

ALO-DR-235TMKIII

With 50 watts of power, available in 3 steps, the DR-135/235/435 series radios are great for mobile or portable operations. Their compact size belies the radios' feature laden resume. The DR-135TMKIII includes a backlit microphone with a metal connector, plus a direct frequency input and direct multi-function access. That means you can adjust the call channel, power setting, memory to VFO, and more.

- 100 memory channels
- Front panel data port
- Rear panel DSUB9 computer connection
- 10 autodial memories
- Wide and narrow FM modes (16K0 & 8K50F3E)
- Super-wide alphanumeric display
- CTCSS, DCS encode and decode, DTMF encode and tone-burst

ALO-DR-135TMKIII	2 Meter Monoband Mobile Base Transceiver	**CALL/WEB**
ALO-DR-235TMKIII	1.25 Meter Monoband Mobile Base Transceiver	**CALL/WEB**
ALO-DR-435TMKIII	70cm Monoband Mobile Base Transceiver	**CALL/WEB**

ALINCO Mobile Transceivers

Accessory	Part Number	Description	ALO-DR-135TMKIII (2M)	ALO-DR-B185HT (2M)	ALO-DR-235TMKIII (220 MHz)	ALO-DR-435TMKIII (70cm)	ALO-DR-735 (2M/70cm)	ALO-DR-03T (10M)	ALO-DR-06T (6M)
Board	ALO-EJ-47U	Digital Voice Board	x		x		x		x
Cables	ALO-EDC-37	DC Cable Only, No Cigar Plug	x		x	x			x
	ALO-EDC-43	Cigar Cable with Charger	x		x	x			x
	ALO-ERW-4C	PC Interface Cable, Serial	x		x				
	ALO-ERW-7	PC Interface Cable, USB	x	x	x		x		
Speaker Mic	ALO-EMS-74	Mobile Mic, 8-Pin DIN	x		x	x			
Microphone	ALO-EMS-53	Mobile Microphone	x	x				x	x

BridgeCom SYSTEMS

1.25M Mobile Radio

Go mobile in style! The BCM-220 enables Amateur Radio enthusiasts to enjoy the reliability of a commercial-grade, durable mobile radio that combines power, 250 memory channels, easy programming capabilities and superior sound quality. For starters, it comes with a dependable Mitsubishi RF power amplifier selectable from 5 to 30W. Operating in 220 MHz, the unit features alpha-numeric display; 4W front panel speaker; ± 1.5 ppm frequency stability TCXO; and much more. The radio includes DTMF microphone, mounting hardware and 12V power cord. Programming software and cable are sold separately.

BGM-BCM-220	1.25M Mobile Radio	**$240.00**
BGM-BCM-220-KIT	BCM-220 Programming Software and Programming Cable	**$50.00**

Lido

Cup Holder Mount

Here's a mounting solution that doesn't involve drilling or glue. The LM-801 settles into any cup holder. Then, with the twist of a knob, its base expands for a secure connection. Whether it's a mobile remote head or a handheld, this mount may be the perfect answer for your mobile installation.

LDO-LM-801EXP Cup Holder Mount **$24.99**

Call us for easy special orders!

ICOM

IC-R8600 Wideband Digital Receiver

The all-new software-designed IC-R8600 covers an impressive 0.01 to 3000 MHz, and will receive a wide range of analog and digital modes, like D-STAR, P25, NXDN and dPMR. The IC-R8600 packs several improvements, like a larger 4.3 inch touchscreen with a fast moving spectrum scope and waterfall display. Advanced FPGA processing provides enhanced signal clarity and accuracy. I/Q signal output allows use of third-party SDR software and external decoding.

ICO-IC-R8600 Wideband Digital Receiver ..... **CALL/WEB**

ICOM

Icom IC-R30 Wideband Scanning Receiver

Building on the popularity of the IC-R20, the IC-R30 incorporates several all-new features. It retains a compact and rugged design, and will permit dual reception—including a combination of analog and digital signals. The receiver is compatible with AM, FM, SSB, CW and WFM, plus several digital modes including D-STAR.

ICO-IC-R30	Wideband Scanning Receiver	**CALL/WEB**
ICO-BP-287	Li-Ion Battery Pack, 7.2/2800 mAh	**$149.99**
ICO-BP-293	Battery Case, Holds 6 AA Batteries	**$59.99**
ICO-MB-133	Belt Clip	**$16.99**
ICO-LC-189	Carrying Case	**$29.99**
ICO-BC-223	Rapid Desktop Charger	**$69.99**
ICO-SP-40	Earphone	**$29.99**
ICO-CS-R30	Programming/Cloning Software, CD-ROM	**$94.99**

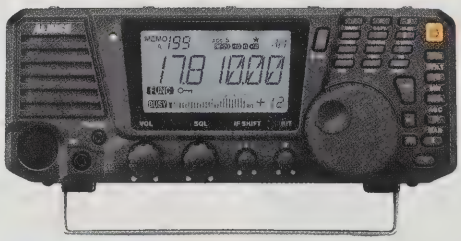
ICOM

IC-R6 SPORT Communications Receiver

Carry a mammoth frequency range in the palm of your hand—from 0.100 to 1309.995 MHz! That includes utility and government communications, Amateur Radio, AM, FM, and shortwave broadcast stations. A clever voice squelch control makes it easy to pick out the voices from the cacophony of data bursts and beacons. It has 1,300 memory channels and robust scanning capabilities.

The IC-R6 Sport has a built-in ferrite bar antenna for AM broadcast and a large, backlit LCD screen. It's powered by 2 AA batteries (not included) or via optional power cords.

ICO-IC-R6SPORT IC-R6 Sport Communications Receiver, Black ..... **CALL/WEB**



ALINCO

Wide Band Communications Receiver

Carry 0.05 to 1299.995 MHz receive capabilities anywhere you go! The DJ-X11 ET lets you listen to two separate channels simultaneously. Plus, you can also plug this into your PC with third-party software and use the DJ-X11T as an SDR.

It features a built in ferrite bar antenna for AM broadcasts and a rubber duck for VHF/UHF; you'll probably want to use an external antenna for serious HF reception. Two big dials and voice feedback make the radio easy to use. It includes a Li-Ion battery pack and charger.

ALO-DJ-X11T	Wide Band Communications Receiver	**CALL/WEB**
ALO-EDH-36	Dry Cell Case	**$23.99**
ALO-ERW-8	Cable for IQ	**$49.99**
ALO-ESC-50	Soft Case	**$27.99**
ALO-ERW-4C	PC Interface Cable (Serial)	**$39.99**
ALO-ERW-7	PC Interface Cable (USB)	**$44.99**

ALINCO

DX-R8T SDR LW/MW/SW Amateur Radio Desktop Receiver

With simple, straightforward controls, you can start enjoying worldwide radio signals the minute you turn the DX-R8T on. It's extremely sensitive and covers 0.15 to 30 MHz. The radio receives USB/LSB, AM, CW and FM. Download Alinco's free software, and you can output the radio's I/Q signal to your PC's sound card and decode DRM signals too.

The DX-R8T is a great standalone SWL radio, but it's also perfectly at home in your shack as a dedicated receiver for the Ham bands. This receiver is packed with features and performance that you simply don't see at this price. Visit DXEngineering.com to see the specs.

ALO-DX-R8T	SDR LW/MW/SW Amateur Radio Desktop Receiver	**CALL/WEB**
ALO-EDS-17	Front Panel Remote Mounting Kit	**$59.99**
ALO-EDC-37	DC Cable Only, No Cigar Plug	**$9.99**
ALO-ERW-4C	PC Interface Cable (Serial)	**$39.99**
ALO-ERW-7	PC Interface Cable (USB)	**$44.99**

YAESU

New!

AR-DV10 SDR Handheld Receiver

For true radio enthusiasts, the new Yaesu AR-DV10 wideband SDR Handheld Receiver is perfect for monitoring your favorite radio services with ease, whatever the signal frequency or mode. It covers 100 kHz to 1300 MHz with the ability to receive several digital protocols, including C4FM, DMR, APCO 25, TETRA, dPMR, NXDN, DCR and GMSK modes. All this in addition to receiving CW, SSB, AM and FM. Thanks to its Digital Auto-Mode Feature, the AR-DV10 instantly recognizes a received signal and automatically switches to the applicable digital or analog mode. It features trouble-free tuning, front speaker with a 700mW loud audio output for clear received voice communications even in noisy environments, 2,000 memory channels, one-touch record button, and large full-dot matrix display. Lithium-ion battery pack, antenna, AC power adapter, charger cradle, belt clip and micro SDcard are included.

YSU-AR-DV10	SDR Wideband Handheld Receiver, 100 kHz-1300 MHz	**CALL/WEB**
YSU-SBR-12LI	Replacement Battery Pack, 7.4 V, 2,000 mAh Lithium-ion	**$99.99**

YAESU

New!

FT-4XR VHF/UHF and FT-4VR VHF FM Handheld Transceivers

For crisp and clear audio, 5W of reliable output power, and rugged construction, Yaesu's new FT-4XR VHF/UHF Dual Band FM Handheld Transceiver is a small package that delivers big time—and at a budget-friendly price. The unit's 1.4" front speaker boasts 1W of powerful audio, and its versatile scanning capabilities include VFO, Memory, Programmable Memory, Memory Bank, and Dual Receive. It comes with Selectable Frequency Step from 5 kHz; two quick programmable keys; and 200 memory channels, 3 home channels and 10 pairs of PMS channels. Enjoy 15 hours of operating time with the supplied 1,750mAh Li-ion battery pack. A 3.5 hour rapid charger is also included. The single-band FT-4VR comes with all the power and core features of the dual band FT-4XR in the same compact size: 2.1" W x 3.5" H x 1.2" D.

YSU-FT-4XR	VHF/UHF Dual Band FM Handheld Transceiver	**CALL/WEB**
YSU-FT-4VR	VHF Single Band FM Handheld Transceiver	**CALL/WEB**
YSU-SBR-28LI	Li-Ion Battery Pack, 1,750mAh	**$35.99**

DX Engineering Super Card

Build your dream station with the best gear. Use your DX Engineering Super Card.

Take advantage of deferred interest payment options. Get the Card, Get the Gear, Get on the Air. Find all the terms and conditions of the DX Engineering Super Card at DXEngineering.com.

YAESU

70cm Single Band Handheld Transceiver

Compact and rugged, this radio offers exceptional performance with a minuscule price tag. It boasts an extended receive range and loud, clear audio response. A large LCD screen, smart search and intuitive controls make this no-hassle HT a joy to use. It packs 5 watts of transmit power.

The FT-257 also incorporates Yaesu's clever automatic transponder system developed for search-and-rescue operations. Here's how it works in a nutshell: which when paired with an assigned "base" radio, the FT-257 "scout" radio will beep when it's moving out of communications range.

YSU-FT-257	430 MHz Single Band Handheld Transceiver	CALL/WEB
YSU-FNB-124LI	Li-Ion Battery Pack	$39.99

YAESU

2M Single Band Handheld Transceiver

This monoband HT is a no-nonsense approach to getting on the 2 meter band. It's durable and waterproof to IPX7 standards, and has power-saving features to extend the battery's already lengthy life. The FT-270R has Yaesu's automatic transponder system and Emergency Automatic ID features. You'll also enjoy an extended receive range that includes ten NOAA weather channels and WX alert capability. For security, there's a keypad lock with password option. This radio also provides one-touch access to Yaesu's WiRES-II™ VoIP Linking System.

For added versatility, there's a DTMF Paging Plug-In Module, which allows you to selectively call a specific station and to receive calls directed specifically to you.

YSU-FT-270R	2M Single Band Handheld Transceiver	CALL/WEB

YAESU

2M/70cm Heavy-Duty Dual-Band Ultra-Compact FM Handheld Transceiver

Ideal for severe field use, the VX-6R can withstand vibration, impacts and immersion in water. The simplified controls make it easy to access the radio's impressive list of features, including Emergency Automatic ID, VFO scanning and a battery saver/battery wake-up. Add the optional weather sensors and you'll get automatic weather updates as well. And expanded receive range covers 10 NOAA WX channels, shortwave broadcast and marine channels. It's small too, about the size of a deck of playing cards.

YSU-VX-6R	144/430 MHz Heavy-Duty Dual-Band Ultra-Compact FM HT	CALL/WEB
YSU-FNB-80LI	Li-Ion Battery Pack, 1,250mAh	$79.99
YSU-FBA-23	Battery Case, Fits 2 AA Batteries	$39.99

YAESU

FT-65R VHF/UHF and FT-25R VHF Handheld Transceivers

Small and lightweight yet darn-near bulletproof, Yaesu built these new handhelds to stand up to harsh use. They come in two flavors, the FT-65R covers the 2 meter and 70cm bands, while the FT-25R is dedicated solely to 2 meter operation.

RF power is selectable in 0.5, 2.5 and 5 watt steps, and the front firing speaker is backed by a full watt of audio amplification. Each radio features a programmable VFO scan, priority channel scan, WX channels/WX alert, LED flashlight, CTCSS/DCS, and an FM broadcast receiver. They come with a 1,950 mAh Li-Ion battery and a rapid charger—all at a very attractive price tag.

YSU-FT-65R	2M/70cm Handheld Transceiver	CALL/WEB
YSU-FT-25R	2M Handheld Transceiver	CALL/WEB
YSU-SBR-25LI	Battery Pack, 1,950 mAh	$39.99
YSU-SBR-26LI	Battery Pack, 2,500 mAh	$49.99

YAESU

FT-70DR C4FM FDMA FM Dual Band Handheld Transceiver

Packing Yaesu's exclusive System Fusion digital protocol, the all-new FT-70DR gives you both analog and digital capabilities with a very attractive price tag. Using Yaesu's clever Automatic Mode Select (AMS) function, the FT-70DR will automatically switch transmit modes depending on the received signal. A multi-color LED light provides quick, intuitive indication of the radio's current mode.

This new handheld also incorporates a digital group monitor function, which allows operators to create and communicate with specific digital groups. The FT-70DR operates on the 2M/70cm bands with a 108 to 579.995 MHz extended receive range. The radio has up to 5 watts (selectable) of RF transmit power.

YSU-FT-70DR	C4FM FDMA FM Dual Band HT	CALL/WEB
YSU-SAD-18B	Replacement Charger	$29.99
YSU-SBH-28	Rapid Charger	$29.99
YSU-SBR-24LI	Li-Ion Battery Pack	$39.99
YSU-SHC-27	Soft Carrying Case	$19.99

YAESU

2M/70cm Dual-Band C4FM Digital Handheld Transceiver

This HT is packed with digital features, yet is still wonderfully easy to use. A massive 1.7" touchscreen panel lets you easily navigate the intuitive menus. The radio has a built-in GPS with logging capabilities, 1200/9600 bps APRS® functionality, and dual watch/dual monitor modes. The FT-2DR also features a band scope, digital group monitor function, a data terminal and Micro SD card slot. It comes with a Li-Ion battery and charger.

YSU-FT-2DR	144/430 MHz Dual-Band C4FM Digital HT	CALL/WEB
YSU-SHC-24	Soft Carrying Case	$19.99
YSU-MH-85A11U	Speaker Mic with Snapshot Camera	$139.99
YSU-FBA-39	Battery Case, Holds 3 AA Batteries	$39.99
YSU-CD-41	Rapid Charging Cradle	$39.99
YSU-FNB-101LI	Li-Ion Battery Pack, 7.4V, 1,100mAh	$69.99
YSU-SBR-14LI	Li-Ion Battery Pack, 7.2V, 2,200mAh	$79.99
YSU-SHB-13	Belt Clip, for YSU-SBR-14LI Battery Pack	$10.99
YSU-SCU-19	PC Connection Cable & Software, USB	$79.99

YAESU

2M/70cm MHz Dual-Band Handheld Transceiver

Armed with wide-band (108-520, 700-999.99 MHz) receiver coverage, Yaesu's FT-60R is an excellent option for listening in the field. It packs 5 watts of power in a small package, so you can stash it in your glovebox or go kit. What makes this HT really unique is Yaesu's Emergency Automatic ID feature originally developed for search-and-rescue missions. When active, it causes the radio of the recipient (who is presumably lost or incapacitated) to transmit, giving search units a chance to listen for the radio.

YSU-FT-60R	144/430 MHz Dual-Band Handheld Transceiver	CALL/WEB
YSU-VAC-370B	Rapid Charger	$78.99
YSU-CT-27	Interface/Cloning Cable	$14.99

YAESU

Accessory	Part Number	Description	YSU-FT-60R	YSU-FT-70DR	YSU-FT-257	YSU-VX-6R	YSU-FT-2DR	YSU-FT-25	YSU-FT-65R	YSU-FT-4XR	YSU-FT-4VR
Coax Adapter	YSU-CN-3	Coaxial Cable Adapter, BNC (F) to SMA (M)	X	X	X	X	X				
AC Adapter	YSU-PA-48B	AC Adapter	X	X	X	X	X				
Cables	YSU-SDD-13	DC Cable, Car Cigar Lighter Plug with Noise Filter	X	X		X	X				
	YSU-E-DC-6	DC Cable, with Plug	X	X	X	X	X				
	YSU-CT-44	Mic Adapter Cable, 2-conductor (F) to TRRS Plug	X				X				
	YSU-SCU-36	Cloning Cable						X	X	X	X
	YSU-SCU-35	Programming Cable						X	X	X	X
Speaker Mics	YSU-MH-34B4B	Speaker Mic	X				X				
	YSU-MH-73A4B	Speaker Mic, Waterproof		X		X					
	YSU-MH-57A4B	Speaker Mic with Swivel Clip & 3.5mm Audio Jack		X		X					
	YSU-SSM-16B	Speaker/Mic 2-Pin						X	X	X	X
	YSU-SSM-512B	Earpiece Microphone, VOX						X	X	X	X
Battery Pack	YSU-FNB-83	Battery Pack	X	X							
Battery Case	YSU-FBA-25A	Battery Case	X	X							

KWD-TH-D74A

KWD-TH-K20A

KWD-TH-D72AK

ALO-DJ-G7T

ALO-DJ-V27T

KENWOOD

TH-D74A Digital Tri-band Handheld Transceiver

This HT boasts 2M, 1.25M and 70cm coverage with wide-band and multi-mode reception. Its built-in APRS-compliant GPS unit is ideal for portable operations. It is also D-STAR voice and data compatible.

The tri-bander packs a DSP tailored precisely to enhancing the human voice range. A built-in IF filter provides excellent SSB/CW reception. The radio has microSD internal storage and connects to a PC easily via micro USB port. Bluetooth® compatibility is standard. It is weatherproof to IP54/55 standards.

KWD-TH-D74A ..... **CALL/WEB**

Rapid Desktop Charger
KWD-KSC-25LSK **$47.99**

Li-Ion Battery Packs
KWD-KNB-74LW **$74.99**
KWD-KNB-75LW **$86.99**

Battery Case
KWD-KBP-9 ..... **$36.99**

Soft Carrying Case
KWD-SC-58 ..... **$20.99**

Speaker Mic
KWD-KMC-45D **$85.99**

KENWOOD

TH-K20A 144 MHz Handheld Transceiver

Get 5.5 watts of power in a 2M handheld small enough to slip into your pocket. This is a great workhorse HT for situations where you need simple, clear communications from an easy-to-use radio. Kenwood also made the TH-K20A rugged and durable, meeting several stringent environmental and water resistance industry standards in the process. It's compact and robust, with 200 memory channels, multiple scan modes, wide/narrow channel spacing, and a backlit screen and keyboard. It comes with a Li-Ion battery pack and desktop cradle charger.

KWD-TH-K20A ..... **CALL/WEB**

Rapid Desktop Charger
KWD-KSC-35S **$29.99**

Li-Ion Battery Pack
KWD-KNB-65L **$47.99**

Battery Case
KWD-BT-16 ..... **$21.99**

Speaker Mic
KWD-SMC-34 ..... **$32.99**

KENWOOD

TH-D72AK Dual-Band Handheld Transceiver

Thanks to its built-in SiRFstar III GPS receiver, this is an excellent 2M/70cm radio for hikers, bikers and campers. This 5 watt handheld is compatible with APRS® data communications to deliver accurate position and weather information. The TH-D72A also packs 9 scan modes, 1,000 memory channels and DX cluster tune. The radio comes with a long-life Li-Ion rechargeable battery pack.

KWD-TH-D72AK ..... **CALL/WEB**

Rapid Desktop Charger
KWD-KSC-32 ..... **$53.99**

Li-Ion Battery Pack
KWD-PB-45L **$71.99**

Battery Case
KWD-BT-15 ..... **$32.99**

Soft Carrying Case
KWD-SC-55 ..... **$16.99**

Speaker Mic
KWD-SMC-34 ..... **$32.99**

ALINCO

DJ-G7T 2M/70cm/23cm FM Tri-Band Handheld Transceiver

Enjoy full duplex receive on three VHF/UHF bands. The DJ-G7T's impressive receive range covers 530 kHz to 1299.995 MHz (824-849.995 MHz are blocked). That means you can listen in to aviation and broadcast bands. The radio has a built-in AM bar antenna and a large, easy to read LCD display. A wide range of adjustable parameters makes this radio uniquely customizable. It is compatible with Alinco's free downloadable cloning software, and comes with a Li-Ion pack and charger.

ALO-DJ-G7T **$259.95**

Cables

ALO-EDC-36	Cigar Cable with Filter	**$23.99**
ALO-EDC-43	Cigar Cable with Charger	**$11.99**
ALO-EDS-14	Mic Conversion Cable	**$13.99**
ALO-ERW-7	PC Interface, USB	**$44.99**

ALINCO

1.25M FM Monoband Handheld Transceiver

As the next generation of Alinco HTs, this 4.5 watt radio offers exceptional monoband 220 MHz performance in a rugged and durable package. It's loaded with two-touch repeater access, 200 memories and a vibrant backlit display, which means you can throw this radio in your go kit and have peace of mind. The radio comes with 9 CTCSS tone squelch (encoding and decoding) and a tone-burst function. It includes a NiMH battery pack and charger, and works with Alinco's free downloadable cloning software.

ALO-DJ-V27T **$144.95**

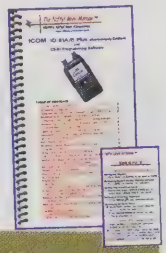
Cables

ALO-EDC-36	Cigar Cable with Filter	**$23.99**
ALO-EDC-43	Cigar Cable with Charger	**$11.99**
ALO-EDS-14	Mic Conversion Cable	**$13.99**
ALO-ERW-7	PC Interface, USB	**$44.99**

Nifty! Ham Accessories

Mini-Manuals and Quick Reference Cards for HTs

Spiral bound and laminated, Nifty's Mini-Manuals are a great way to get acclimated with your radio quickly. Nifty also makes Quick Reference Cards that are small enough to fit in a wallet, yet contain a wealth of information to help you get the most from your radio. Popular radios are listed below; many more are available at DXEngineering.com.



Part Number	Brand	Model	Price	Part Number	Brand	Model	Price
Mini-Manuals				Quick Reference Cards			
NIF-MM-DJG7T	Alinco	DJ-G7T	$22.25	NIF-QR-DJ500	Alinco	DJ-500T/E	$6.95
NIF-MM-DJV57	Alinco	DJ-V57T	$19.99	NIF-QR-ICT70	Icom	IC-T70A/E	$6.95
NIF-MMID51APLUS2	Icom	ID-51A Plus2	$25.95	NIF-QR-ICV80	Icom	IC-V80/E	$6.95
NIF-MM-THD74A	Kenwood	TH-D74A/E	$24.95	NIF-QR-THK20-K40	Kenwood	TH-K20A/K40A	$6.95
NIF-MM-THD72A	Kenwood	TH-D72A/E	$24.25	NIF-QR-FT60R	Yaesu	FT-60R	$6.95
NIF-MM-THF6A	Kenwood	TH-F6A	$21.85	NIF-QR-FT270	Yaesu	FT-270R	$6.95
NIF-MM-FT2DR	Yaesu	FT-2DR	$24.95	NIF-QR-FT252-257	Yaesu	FT-252/257	$6.95
NIF-MM-VX6R	Yaesu	VX-6R	$20.85	NIF-QR-FT65R	Yaesu	FT-65R	$6.95
NIF-MM-FT70DR	Yaesu	FT-70DR	$18.95				

ALINCO

DJ-500T 2M/70cm FM Dual-Band Handheld Transceiver

The DJ-500T is designed for operators who need a ton of features crammed into a durable and rugged HT. The radio boasts 5 watts of power and 200 memory channels. The DJ-500T also permits semi-duplex dual-band operation. It includes a Li-Ion battery pack and charger. Multiple scanning modes and a large alphanumeric display make this radio easy to set up and use. You can also clone this radio quickly using Alinco's free software.

ALO-DJ-500T **$129.95**

Orders over $99 qualify for FREE standard shipping—see pg. 76 for details.

ICOM

D-31A PLUS UHF Handheld Transceiver

Compact and tough, the ID-31A PLUS combines global D-STAR connectivity and a raft of innovative features that place it at the top of its class. This 70-centimeter band HT weighs less than 8 ounces with battery pack and antenna. It features 1,252 memory channels, an extended range receiver that lets you listen from 400 MHz to 479 MHz, a position-reporting function in Digital Voice mode, digitally modulated clear voice, 950 bps data transfer, and remote-controlled functions from your PC. The unit comes with exclusive CS-31 software, battery pack, wall charger, antenna, belt clip and hand strap.

ICO-ID-31A-PLUS	UHF Handheld Transceiver	$279.99
ICO-OPC-2350LU	USB Smartphone Cable for ID-51A, ID-31A, ID-4100	$74.99
ICO-LC-178	Leather Handheld Carrying Case	$38.99
ICO-HM-166LS	Slim, Lightweight Earphone Mic, L-Type Connector	$99.99

ICOM

ICO-IC-T70A

IC-T70A-HD Dual-Band FM Transceiver

Icom's IC-T70A-HD Dual-Band FM Transceiver gives you 5 watts of RF power on 2M and 70cm in a small, lightweight package. It also has an internal VOX function for hands-free operation when used with an optional headset and plug-adapter cable. CTCSS and DTCS tone codes provide quiet stand-by and allow you to use tone-access repeaters.

This potent dual-bander has selectable wide/narrow channel spacing, along with a WX channel/WX alert function. A handy power-save/auto power-off feature conserves battery life. It has repeater and busy channel lockout. The IC-T70A-HD comes with a BP-265 Li-Ion battery pack and charger, offering over 19 hours of power on a single charge.

ICO-IC-T70A-HD	Dual-Band FM Transceiver;	CALL/WEB
ICO-HM-131	Speaker Mic	$42.99
ICO-LC-174	Carrying Case	$37.99

ICOM

ICO-IC-V80

IC-V80 VHF FM Transceivers

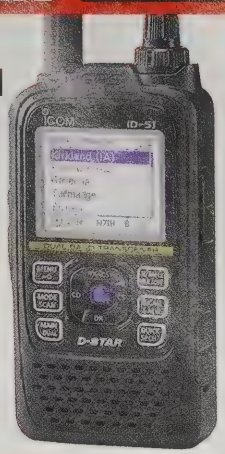
Icom's most economical full-featured 2 meter handheld gives you 5.5 watts of RF power. The external DC power jack allows for operation and charge when used with an external DC power supply. With its 207 alphanumeric memory channels, you can pick and choose your scanning. CTCSS and DTCS tone codes provide quiet stand-by and allow you to use tone-access repeaters.

The IC-V80 handheld has passed the MIL-STD-810 environmental tests for practical outdoor use. The IC-V80-HD features a BP-265 Li-Ion battery pack and charger, offering over 19 hours of power on a single charge. The IC-TV80SPORT includes a 6 AA battery pack.

They both pack WX channel/WX alert and automatic repeater functions, along with repeater/busy channel lockouts. The radios also feature wide/narrow channel spacing. Programming is a breeze, when using the optional CS-V80 software.

ICO-IC-V80-HD	VHF FM Transceiver	CALL/WEB
ICO-IC-V80-SPORT	VHF FM Transceiver	CALL/WEB
ICO-CS-V80	Cloning Software, for IC-V80/Sport	$49.99
ICO-HM-158LA	Speaker Mic	$46.99

ICOM



ID-51A Plus 2

Icom's ID-51A Plus 2 incorporates two key D-STAR functions, Terminal Mode and Access Point Mode. It also can deliver blazing-fast data transfer in digital voice mode. The HT also features an integrated GPS receiver with an automatic position reply function. For added versatility, you can use the radio's dualwatch feature to listen to FM, AM and shortwave broadcast stations, while simultaneously monitoring the Ham bands. A new DV and FM repeater search provides quick, comprehensive scans.

ICO-ID51APLUS2BK	VHF/UHF Dual Band Transceiver, Black	CALL/WEB
ICO-SJ-1	Silicone Case	$34.99

Jack Cable
ICO-CT-17 ..... $139.99

Compact Speaker Mic
ICO-HM-186LS $58.99

Remote Control Speaker Mic
ICO-HM-75LS $78.99

Belt Clip
ICO-MB-127 ..... $21.99

BridgeCom SYSTEMS

BCH-270 2M/70cm Handheld Transceiver

This durable, lightweight dual band handheld radio boasts excellent battery life, easy switching from 5 to 2W of power, 256 programmable channels to store all your favorite frequencies, easy-to-read LCD display and great sound. The radio includes battery, antenna, belt clip, lanyard, charger base and wall plug. Programming software can be downloaded free from BridgeCom's support page. Programming cable is sold separately.

BGM-BCH-270	2M/70cm Handheld Transceiver	$95.00

BridgeCom SYSTEMS

BCH-220 Handheld 1.25 Meter Transceiver

Missing out on the 1.25M action? This affordable HT is your solution. With 25 kHz (wideband) and 12.5 kHz (narrowband) coverage on 1.25 meters, the BCH-220 is an easy way to operate 220 MHz. It's rugged yet lightweight and packs 5 watts of RF power. Plus, the extended 219.000-259.995 MHz receive range adds to its versatility. The BCH-220 comes with a battery pack and desktop charger.

BGM-BCH-220	Handheld 1.25 Meter Transceiver	$85.00

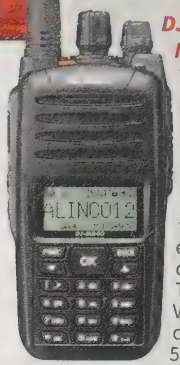
ICOM

Accessory	Part Number	Description	ICO-IC-T70A-HD	ICO-IC-V80-HD & ICO-IC-V80SPORT	ICO-ID-51A-PLUS2
Antennas	ICO-AD-92SMA	Antenna Connector Adapter (SMA Male to BNC Female)	X		X
	ICO-FAS-270C	VHF/UHF HT & Scanner Antenna, Flexible, SMA Male	X		X
Chargers	ICO-BC-193-12	Rapid Desktop Charger for BP265 Li-Ion	X	X	
	ICO-BC-202-02	Rapid Desktop Charger			X
Battery Packs	ICO-BP-264	NiMH 7.2V/1400mAh	X	X	
	ICO-BP-272	Li-Ion			X
	ICO-BP-273	Alkaline			X
Battery Case	ICO-BP-263	Alkaline Battery Case, Holds 6 AA Batteries	X	X	
Cables	ICO-CP-12L	Cigarette Lighter Cable with Noise Filter, to Charge Radio	X		X
	ICO-OPC-478UC	PC to Radio Programming Cable, USB to Stereo 3.5mm Male	X	X	
	ICO-OPC-2218LU	Cloning/Data Cable			X

BridgeCom SYSTEMS

Accessory	Part Number	Description	BGM-BCH-270	BGM-BCH-220
Cables	BGM-270-CABLE	Programming Cable	X	
	BGM-BCH-CABLE	Programming Cable		X

ALINCO New!



DJ-MD5T VHF/UHF 5W DMR Dual Mode HT

You saw it at Hamvention 2018 and now it's available for your shack. This brand-new dual mode DMR brings the level of features and benefits you'd expect from the handheld leaders at Alinco, including spectacularly clear digital audio that takes the frustration out of opertating in noisy environments. The digital/analog capable transceiver (DMR Tier 1 and Tier 2) has a 1.77" TFT color LCD display; VFO/MR switch; 4,000 channel memory capacity; selectable output power of 5, 2.5, 1 and 0.2 watts; SMS, communication recording, and individual/group/all call (digital mode); CTCSS/DCS/DTMF/2Tone/5Tone encode and decode (analog mode); selectable battery save and 1700mAh Li-ion battery. Weighing only 256 grams with antenna and battery pack, it boasts a frequency range of 136-174MHz / 400-480MHz and frequency stability of +-2.5ppm. Model DJ-MD5TGP supports GPS position reporting.

ALO-DJ-MD5T*	VHF/UHF 5W DMR HT
ALO-DJ-MD5TGP*	VHF/UHF 5W DMR HT w/GPS

*Pending FCC Approval

ALINCO

DJ-MD40 70cm Digital Handheld Transceiver

An excellent digital UHF companion, the DJ-MD40 handheld gives you up to five watts of RF output. This DMR HT can operate in analog, digital and mixed modes. For operating ease, it has 1,000 memories, broken into 64 channel zones with quick contact access. Other handy features include a digital recorder, call logs, and password protection. It comes with a li-ion battery pack.

ALO-DJ-MD40T	70cm Handheld Transceiver	$189.95
ALO-EBC-45	Belt Clip	$9.99
ALO-EBP-96	Battery Pack	$42.99
ALO-EDC-211	Charging Cradle	$19.99
ALO-EDC-213	AC Adapters	$19.99
ALO-ERW-13	USB Programming Cable	$26.99

RAM® MOUNTS

RMI-4949

X-Grip Holders

Since they can fit a variety of accessories, Ram's X-Grip Holders can be a versatile addition to your vehicle or shack. They're interchangeable with a wide range of Ram's mounts, like its handlebar, floor, clamp and strap versions. That means you can use them for your radio receiver head, your smartphone, GPS or Mp3 player. There are several sizes and configurations available, visit DXEngineering.com to see them all.

RMI-3749	Suction Arm, Fits Common Smartphones	$41.49
RMI-3607	Surface Mount, Fits Common Smartphones	$39.99
RMI-4949	Suction Mount, Fits iPhone	$50.99

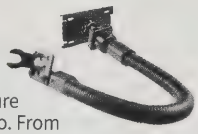
ALINCO

Digital/Analog Handheld Transceivers

Need a heavy-duty digital mobile radio (DMR technology) with near-bulletproof reliability? Alinco's DX-AXD1 and DJ-AXD4 deliver—perfect for digital communications in harsh environments. They're analog and digital capable (DMR Tier 1 and Tier 2), with RF output selectable from 1 to 5 watts. A backlit LED screen is easy to read, even in dim light, and supports digital text messaging. These HTs deliver outstanding audio clarity and boast several security and alert features. A Li-Ion battery pack and desk charger are included.

ALO-DJ-AXD1T	VHF Digital/Analog HT, 2 Meter	$189.95
ALO-DJ-AXD4T	UHF Digital/Analog HT, 70cm	$189.95
ALO-EMS-80	Speaker Mic	$39.99
ALO-ERW-14	PC Interface Cable	$39.99

Lido

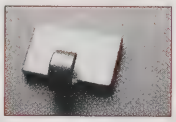


Floor Mount

You simply attach the base of the flexible 22" gooseneck to your seat's mounting bolt to get a secure and versatile mount for your radio. From there, you can position the mount exactly where you want it. It uses the industry-standard AMPS mounting pattern to make installation a breeze.

LDO-LM-300	Floor Mount	$29.99

Lido



Microphone Hooks

Here's an easy way to mount your mic within arm's reach. The hooks attach to your dash with an included 3M adhesive pad, which is easily removed without leaving a residue. The LM-1202 Mount is made specifically for Yaesu and Kenwood-style mics. If you've got an Icom, you'll want the LM-1201 Mount.

LDO-LM-1201	Microphone Hook, for Icom	$4.99
LDO-LM-1202	Microphone Hook, for Yaesu and Kenwood	$6.99

PVP-727-12

PANAVISE®

PVP-727-06

PVP-706-811

Mobile Electronics Mounts

Using what it learned developing rock-solid shop equipment, PanaVise developed a line of rugged mounts for your mobile electronics. These mounts are perfectly at home in a mobile Ham station, and they also work great in a variety of other environments like telecom hubs, broadcast stations, and laboratories.

PanaVise makes several types, including window mounts, pedestal mounts, and flex mounts. Visit DXEngineering.com and type keywords "PanaVise Mounts" into the search box to see them all.

BGM-D-500-VHF BGM-D-500-UHF

BridgeCom SYSTEMS

D-500 Handheld DMR Transceivers

Here's a smart, affordable way to get into Digital Mobile Radio (DMR). BridgeCom Systems offers two handhelds that are packed with performance. Available for both the 2M and 70cm bands, these HTs work in both analog NBFM (12.5 kHz) and DMR (TDMA) modes, plus they're WBFM capable. They operate in DMR Tier 1 and DMR Tier 2.

The D-500 radios pack a selectable 2 or 5 watts, and feature a Li-Ion battery for hours of talk time. BridgeCom includes a charger and FREE programming software with each radio too.

BGM-D-500-VHF	D-500 Handheld Transceiver, 2 Meter	$145.00
BGM-D-500-UHF	D-500 Handheld Transceiver, 70cm	$145.00
BGM-D-500-CABLE	Programming Cable	$15.00

Internet Labs

DV Dongle

PC Access Dongle

Get digital network accessibility anywhere using the Internet. The innovative PC Dongle essentially turns your computer into a digital receiver. That means you'll be able to enjoy worldwide VHF/UHF communications, even if there are no digital repeaters nearby. Setup is easy, and the dongle plugs right in to your computer's USB port. It is PC/Mac compatible, high-speed Internet access required.

INL-DV-DONGLE	PC Access Dongle	$199.99

Digital Voice Access Point Dongles

Create your own digital network hotspot, even if there aren't any repeaters around. Plug the Digital Voice Access Point Dongle into your computer to transform it into a digital network gateway. Then use your own digital radio to begin connecting with gateways and reflectors across the planet. The dongle includes an antenna good for whole-house coverage. You can upgrade the antenna for increased range. The free, specialized DVAPTool is PC, Mac and Linux compatible.

INL-DV-AP-2M	Digital Voice Access Point Dongle, 2 Meter	$249.99
INL-DV-AP-70CM	Digital Voice Access Point Dongle, 70cm	$269.99

Digital Voice Dongle

If you travel, but can't take your radio with you, stay in touch with this handy tool. Plug it into your PC or Mac's USB port and, with the free downloadable DVTool software, use your computer to connect to the popular international digital Amateur Radio gateway network. The DV3K lets you TX/RX in digital voice mode as you would with a digital radio. You'll just need an ordinary computer microphone and speaker to get on the air. It's small, easy to install, and works with Windows, Linux, or Mac OS X.

INL-DV3K	Digital Voice Dongle	$149.99

rt SYSTEMS
RADIO PROGRAMMING MADE EASY

Programming/ Cloning Software and Cables

RT Systems makes programming your radio much less tedious. Instead of pressing buttons and reading small LCD screens, you can simply scroll through checkboxes and enter information with your keyboard. When noted, the proper interface cable comes with the software. The cables are also available separately. Find more at DXEngineering.com.

Part Number	Radio	Cable	Price
RTP-APK-G7-USB	Alinco DJ-G7	USB-57B	$48.99
RTP-APK-V27-USB	Alinco DJ-V27	USB-57B	$48.99
RTP-APK-500-USB	Alinco DJ-500	USB-29A	$48.99
RTP-APK-135-USB	Alinco DR-135	USB-29A	$48.99
RTP-APK-235-USB	Alinco DR-235	USB-29A	$48.99
RTP-APK-435-USB	Alinco DR-435	USB-29A	$48.99
RTP-APK-635-USB	Alinco DR-635	USB-29A	$48.99
RTP-APK-DR03-USB	Alinco DR-03	USB-29A	$48.99
RTP-APK-DR06-USB	Alinco DR-06	USB-29A	$48.99
RTP-APK-B185-USB	Alinco DR-B185	USB-29A	$48.99
RTP-WCS-2300-USB	Icom IC-2300	USB-29A	$48.99
RTP-WCS-2730-USB	Icom IC-2730A	USB-29A	$48.99
RTP-WCS-7000-USB	Icom IC-7000	USB-RTS01	$48.99
RTP-WCS-7100-USB	Icom IC-7100	USB-RTS01	$48.99
RTP-WCS-7200-USB	Icom IC-7200	—	$48.99
RTP-WCS-7300-U	Icom IC-7300	—	$24.99
RTP-WCS-7300-USB	Icom IC-7300	USB-RT42	$34.99
RTP-WCS-7410-USB	Icom IC-7410	USB-RTS01	$48.99
RTP-WCS-80-DATA	Icom IC-80	USB-RTS05	$48.99
RTP-WCS-9100-USB	Icom IC-9100	USB-RTS01	$48.99
RTP-WCS-R8600-USB	Icom IC-R8600	USB-RT42	$35.00
RTP-WCS-T70-USB	Icom IC-T70	USB-29A	$48.99
RTP-WCS-V80-USB	Icom IC-V80	USB-29A	$48.99
RTP-WCS-D31-USB	Icom ID-31	USB-RTS05	$48.99
RTP-WCSD31PLUSUS	Icom ID-31PLUS	USB-RTS05	$48.99
RTP-WCSD4100DATA	Icom ID-4100A	USB-29A	$48.99
RTP-WCS-D51-USB	Icom ID-51A	USB-RTS05	$48.99
RTP-WCS-D5100USB	Icom ID-5100	USB-29A	$48.99
RTP-WCSD5100DATA	Icom ID-5100A	USB-RTS05	$48.99
RTP-WCS-D880DATA	Icom ID-880	USB-RTS05	$48.99
RTP-KRS-D72-U	Kenwood TH-D72	—	$24.99
RTP-KRS-F6-USB	Kenwood TH-F6/F7	USB-K4Y	$48.99
RTP-KRS271281USB	Kenwood TM-271/281	USB-K5D	$48.99
RTP-KRS-D74-U	Kenwood TH-D74A	—	$24.99
RTP-KRS-D74-USB	Kenwood TH-D74A	USB-A/B	$49.99
RTP-KRS-V71-USB	Kenwood TM-V71A/E	USB-K5G	$48.99
RTP-KRS-480-USB	Kenwood TS-480	USB-63	$48.99
RTP-KRS-590-USB	Kenwood TS-590	USB-63	$48.99
RTP-ADMS-1900USB	Yaesu FT-1900	USB-29F	$48.99
RTP-ADMS-25-USB	Yaesu FT-25	USB-55	$48.99
RTP-ADMS-270-USB	Yaesu FT-270	USB-57B	$48.99
RTP-ADMS-2900USB	Yaesu FT-2900	USB-29F	$48.99
RTP-ADMS-450-USB	Yaesu FT-450	USB-63	$48.99
RTP-ADMS-1J-USB	Yaesu FT-60	USB-57A	$48.99
RTP-ADMS-65-USB	Yaesu FT-65	USB-55	$48.99
RTP-ADMS-7900USB	Yaesu FT-7900	USB-29B	$48.99
RTP-ADMS-4A-USB	Yaesu FT-817	USB-62	$48.99
RTP-ADMS-4B-USB	Yaesu FT-857/897	USB-62	$48.99
RTP-ADMS-891-USB	Yaesu FT-891	USB-A to USB-B	$34.99
RTP-ADMS-2I-USB	Yaesu FT-8800	USB-29B	$48.99
RTP-ADMS-2H-USB	Yaesu FT-8900	USB-29B	$48.99
RTP-ADMS-991A-U	Yaesu FT-991/A	—	$24.99
RTP-ADMS-991AUSB	Yaesu FT-991/A	USB-A/B	$49.99
RTP-ADMS-FT1DUSB	Yaesu FT-1D	USB-68	$48.99
RTP-ADMS-FT2DUSB	Yaesu FT-2D	USB-68	$48.99
RTP-ADMSDX1200US	Yaesu FTDX-1200	USB-63	$48.99
RTP-ADMSDX3000US	Yaesu FTDX-3000	USB-63	$48.99
RTP-ADMSM3100USB	Yaesu FTM-3100	USB-29F	$48.99
RTP-ADMSM3200USB	Yaesu FTM-3200	USB-29F	$48.99
RTP-ADMS-VX3-USB	Yaesu VX-3	USB-57A	$48.99
RTP-ADMS-VX6-USB	Yaesu VX-6	USB-57B	$48.99
RTP-ADMS-VX8-USB	Yaesu VX-8/D/DR	USB-59	$64.99
RTP-YPS-4XV-USB	Yaesu FT-4X/V	USB-55	$48.99
RTP-YPS-7250-USB	Yaesu FTM-7250	USB-29F	$48.99
RTP-YPS-818-USB	Yaesu FT-818	USB-62	$48.99

West Mountain RADIO

Digital Modes + Rig Control Interface!

RIGblaster Advantage WMT-58012-1288

Connect the RIGblaster Advantage to your radio's microphone connector, and a computer USB connector and you'll have access to over 100 existing and future Ham radio sound card software programs! You'll also get over 20 exciting modes that your radio could not otherwise operate. The Advantage also links your computer software and radio using CAT, CI-V or DB9 interface cables.

WMT-58012-1288 RIGblaster Advantage **$189.95**

RIGblaster Cables and Accessories

To maximize the potential of your RIGblaster, adapters, kits and accessories are available.

Part Number	Description	Price
WMT-58107-971	RIG Control Cable for CI-V (Icom and TEN-TEC) Radios	$9.95
WMT-58108-972	CAT Cable for Yaesu FT-100/100D/817/857/897	$9.95
WMT-58108-974	CAT Cable for Yaesu FT-736/747/767/990/1000	$9.95
WMT-58214-1295	RIGblaster DB9F to DB9F Serial Cable	$9.95
WMT-58111-975	Instant Setup Quick Connector Kit for Icom, Yaesu, Kenwood	$19.95
WMT-58126-990	USB to RS232 Radio Interface Cable	$24.95
WMT-58136-1000	4-/8-Pin to RJ45 Conversion Kit	$19.95
WMT-58137-1001	AC Power Supply for RIGblaster M8, Plus, Pro	$14.95
WMT-58140-1010	Replacement Sound Card Software CD-ROM	$9.95

West Mountain RADIO

RIGblaster Blue Wireless Interface

West Mountain has added Bluetooth® connectivity to its legendary RIGblaster interface. This new system means you can control your RIGblaster via smartphone, operate hands-free with a Bluetooth headset mic, or adjust parameters using a tablet PC.

The unit itself has all the features of West Mountain's current RIGblaster, so you'll be able to enjoy PSK31, RTTY, HF packet and a wide range of other digital modes. Find all the details at DXEngineering.com.

WMT-58013-1502 RIGblaster Blue Wireless Interface **$199.95**

RIGblaster Digital Mode Interface Cables

These cables connect your RIGblaster to your radio. There are cables available for many specific models and digital modes. There are even cables that can actually key your CW jack on your radio for true FSK/RTTY transceiver inputs.

RIGblaster Digital Mode Interface Cables ..... Starting at **$9.95**

Radio Interface Cables

rt SYSTEMS
RADIO PROGRAMMING MADE EASY

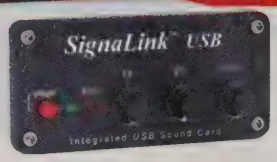
RT Systems has cables for many of the most popular radios in use today. They are compatible with various handhelds, mobiles, HF rigs and receivers from common manufacturers.

Part Number	Radio	Cable	Price
RTP-USB-29A	Alinco, Icom, Yaesu	USB to Stereo 3.5mm Male Plug	$29.99
RTP-USB-57B	Alinco, Yaesu	USB to 4-Conductor TRRS 3.5mm Plug	$29.99
RTP-USB-RTS05	Icom	USB to Stereo 2.5mm Male Plug	$29.99
RTP-USB-RTS01	Icom	USB to Stereo 3.5mm Male Plug	$29.99
RTP-USB-92	Icom	USB to 12-Pin Plug, for IC-92AD	$49.99
RTP-RT-41	Icom, Kenwood	USB to USB Mini	$8.99
RTP-USB-K4Y	Kenwood	USB to 3.5/2.5mm Plug	$29.99
RTP-USB-K5G	Kenwood	USB to 8-Pin Mini DIN	$29.99
RTP-USB-K5D	Kenwood	USB to 8-Pin Modular Plug	$29.99
RTP-USB-69	Kenwood	USB to 6-Pin DIN	$29.99
RTP-USB-63	Kenwood, Yaesu	USB to Female DB-9	$29.99
RTP-RT-42	Yaesu, Icom	USB A to USB B	$11.99
RTP-RT-40	Yaesu	8-Pin Mini DIN	$8.99
RTP-OPEN-VX8	Yaesu	VX8 Mic/Data Cable to Open Wire Pigtail	$7.99
RTP-USB-29B	Yaesu	USB to 6-Pin Mini DIN	$29.99
RTP-USB-60	Yaesu	USB to 6-Pin DIN	$29.99
RTP-USB61	Yaesu	USB to 6-Pin Mini DIN, Data Cable	$29.99
RTP-USB-62	Yaesu	USB to 8-Pin Mini DIN	$29.99
RTP-USB-68	Yaesu	USB to Mini-B	$29.99
RTP-USB-RTS03	Generic	USB to RS232 Adapter with Drivers	$22.99

Don't see the cable you need? Check out DXEngineering.com, there's a good chance we have it!

SignaLink™ PC/Radio Sound Card Interface

Tigertronics
Grants Pass, Oregon



The all-new SignaLink USB combines the legendary performance of the original SignaLink SL-1+ with a state-of-the-art, built-in low-noise sound card. All sound card digital and voice modes are supported by the SignaLink USB. This includes traditional modes such as RTTY, SSTV and CW, as well as today's hottest new modes like PSK-31, MT-63 and EchoLink®. The front panel controls let you adjust your Transmit Audio, Receive Audio and Transmit Delay on the fly.

The SignaLink USB needs just one USB connection to the computer and one connection to the radio (in most cases). Convenient front panel controls make setup and operation very easy. The SignaLink USB is fully isolated and is compatible with all radio Mic, Data and Accessory ports. The SignaLink USB allows you to use your computer's sound card for other functions while enjoying digital communications.

Just order the correct, fully-assembled interface cable for your radio(s) and simply "plug and play." Cables are available for a mic connector interface or rear DIN plugs on radios so equipped. It makes for a neat, clean installation.

- Easy to set up
- Just plug in two cables
- Software included
- Built-in sound card
- Works with all radios
- Powered through USB cable
- Easy hookup to Macintosh or PC
- Comprehensive, easy-to-follow instructions

SignaLink USB Digital Communications Interface Combos

To make installation easier, DX Engineering created combos that pair a Tigertronics SignaLink with a radio-specific interface cable. The manufacturers are listed below; visit DXEngineering.com to find your specific radio model.

Part Number	Radio	Price
TGR-SLUSB13I-P	Icom 13-Pin DIN and SL-USB	$129.95
TGR-SLUSB13K-P	Kenwood 13-Pin DIN and SL-USB	$129.95
TGR-SLUSB4R-P	Drake 4-Pin Mic and SL-USB	$129.95
TGR-SLUSB5PD-P	Yaesu, TEN-TEC 5-Pin DIN	$129.95
TGR-SLUSB6PM-P	Icom, Kenwood, Yaesu 6-Pin Mini-DIN and SL-USB	$129.95
TGR-SLUSB8PD-P	Icom, TEN-TEC 8-Pin DIN and SL-USB	$129.95
TGR-SLUSB8R-P	Icom, Alinco, Elecraft , Kenwood, Yaesu 8-Pin MIC and SL-USB	$129.95
TGR-SLUSBHTW-P	Kenwood, Baofeng, Wouxun HT Plug and SL-USB	$129.95
TGR-SLUSBHTY-P	Yaesu HT Plug and SL-USB	$129.95
TGR-SLUSBK3-P	Elecraft K3 and SL-USB	$129.95
TGR-SLUSBKX3-P	Elecraft KX3 Plug and SL-USB	$129.95
TGR-SLUSBNC-P	No Connector DIN and SL-USB	$116.95
TGR-SLUSBRJ1-P	Yaesu RJ11 6-Pin Modular and SL-USB	$129.95
TGR-SLUSBRJ4-P	Icom, Kenwood, Alinco, Yaesu RJ45 and SL-USB	$129.95
TGR-SLUSB847-P	Yaesu 3.5mm Data I/O Jack and SL-USB, FT-847	$129.95
TGR-SLUSBVXY-P	Yaesu HT TRRS Mic/Speaker Plug and SL-USB	$129.95
Preprogrammed "Plug and Play" Radio Jumper Modules		
TGR-SL-MOD8RI	Jumper Module, Icom 8-Pin Mic Interface	$9.95
TGR-SL-MOD13I	Jumper Module, Icom 13-Pin Accessory Port	$9.95
TGR-SL-MOD8RK	Jumper Module, Kenwood 8-Pin Mic Interface	$9.95
TGR-SL-MOD13K	Jumper Module, Kenwood 13-Pin Accessory Port	$9.95
TGR-SL-MOD8RY	Jumper Module, Yaesu 8-Pin Mic Interface	$9.95
TGR-SL-MOD5PD	Jumper Module, TEN-TEC/Yaesu 5-Pin DIN Interface	$9.95
TGR-SLMODHT	Jumper Module, Yaesu HT, use w/SLCABHTY Cable	$9.95
TGR-SL-MOD6PM	Jumper Module, 6-Pin Mini-DIN	$9.95
TGR-SL-MOD8PD	Jumper Module, 8-Pin DIN	$9.95
TGR-SL-MODK3	Jumper Module, Elecraft K3	$9.95
TGR-SL-MODKX3	Jumper Module, Elecraft KX3	$9.95

SignaLink Radio Interface Cables-You need the right cable for your SignaLink. If you change radios, add these to your existing SL-USB. These cables use either your radio's mic connector or rear DIN port. Some radios do not have the "RX Audio" signal on the mic connector and will require a mono cable between the SignaLink USB and the radio. You can avoid this issue by attaching the SignaLink to your radio's Data or Accessory port.

Part Number	Description	Price
TGR-SL-CAB4R	4-Pin Round Mic Connector Interface Cable	$22.95
TGR-SL-CAB8R	8-Pin Round Mic Connector Interface Cable	$22.95
TGR-SL-CABRJ1	RJ11 Mic Connector Interface Cable	$22.95
TGR-SL-CABRJ4	RJ45 Mic Connector Interface Cable	$22.95
TGR-SL-CAB5PD	5-Pin TEN-TEC/Yaesu DIN Interface Cable	$22.95
TGR-SLCABHTY	Yaesu HT Interface Cable	$22.95
TGR-SL-CABVXY	Yaesu TRSS Mic/Speaker Plug	$22.95
TGR-SL-CAB847	Yaesu 3.5mm I/O Jack	$22.95
TGR-SLCABHTW	Kenwood, Baofeng and Wouxun HT Interface Cable	$22.95
TGR-SL-CAB8PD	8-Pin DIN Interface Cable	$22.95
TGR-SL-CAB13I	13-Pin DIN Icom Interface Cable	$22.95
TGR-SL-CAB13K	13-Pin DIN Kenwood Interface Cable	$22.95
TGR-SL-CAB6PM	6-Pin Mini-DIN Interface Cable	$22.95
TGR-SL-CABNC	Unterminated Cable Interface Cable	$9.95
TGR-SL-CABK3	Special Elecraft K3 Interface Cable	$22.95
TGR-SL-CABKX3	Special Elecraft KX3 Interface Cable	$22.95
TGR-SLHEAD	Header Plug for Radio Programming	$12.95

RigExpert®

New!

USB Transceiver Interface

This new and powerful plug-and-play USB transceiver interface is based on high-quality stereo codec IC for operating phone, CW and digital modes using your personal computer, all in one through a single USB port. Features include transceiver audio interface, CAT interface for all radio models, FSK output, PTT and CW outputs, built-in Winkey keyer, microphone with QSO recording option and level control, and footswitch inputs.

REU-TI-5000 USB Interface..... $249.99

Digital Mode and Radio Control Interface

This clever tool links your radio and computer, giving you rig control, plus keying and audio interface capabilities. It's a must-have for digital operation, and is compatible with all digital modes, including CW, RTTY and digital voice. The audio interface lets you record and playback voice, measure signal levels and more. The computer interface can control frequency, mode, and other critical radio functions.

The new TI-8 improves upon the earlier TI-7 by adding a CW output jack for true CW keying with logging and contest programs that support WinKey mode—find all the details at DXEngineering.com.

The interface connects to your computer's USB port and requires a radio-specific interface cable (sold separately in the table below).

REU-TI-8 Digital Mode and Radio Control Interface Plus WinKey Mode..... $249.99

RigExpert®

Wireless Transceiver Interface

Take the feature laden RigExpert TI-7, and then add wireless Internet control capabilities and you get the WTI-1. By using a Wi-Fi connection, you'll be able to operate your radio from another country, or share your rig with your friends. That means your laptop essentially becomes your station! It's also a great option if you want control capabilities for a remote station. The interface gives you all of the digital modes you'd expect, plus remote VoIP operation.

The WTI-1 connects the same way the TI-7 does, so you'll need a special radio interface cable found in the table below. In addition to Wi-Fi, you can use a traditional wired Internet connection as well.

REU-WTI-1 Wireless Transceiver Interface..... $404.99

Radio Interface Cables

These cables are required to connect RigExpert's Standard, Plus, TI-5, TI-7, TI-8 and WTI-1 digital interfaces to your radio. A list of some of the more common radio applications are below, but there are many more. To find yours, call us or visit DXEngineering.com.

Part Number	Radio Brand	Common Radio Applications	Price
REU-EL-001S	Elecraft	K3	$49.99
REU-EL-002	Elecraft	KX3	$49.99
REU-IC-001	Icom	IC-735, IC-756, IC-765, IC-7600, IC-7800	$49.99
REU-IC-002	Icom	IC-706, IC-703, IC-7000, IC-718, IC-9100	$49.99
REU-IC-003	Icom	IC-746, IC-7400	$49.99
REU-TS-001S	Kenwood	TS-2000, TS-570D/S/SG, TS-590S/SG	$49.99
REU-TS-002	Kenwood	TS-850S, TS-950S	$49.99
REU-TS-003	Kenwood	TS-480HX/480SAT	$49.99
REU-TS-004	Kenwood	TS-140S, TS-450S, TS-690S	$49.99
REU-TS-005	Kenwood	TS-870S	$49.99
REU-TS-006S	Kenwood	TS-990S	$49.99
REU-TT-001S	TEN-TEC	Argo, Orion	$49.99
REU-YS-001	Yaesu	FT-100/D, FT-817/ND, FT-857/D, FT-897/D	$49.99
REU-YS-002S	Yaesu	FT-1000MP/MKV	$49.99
REU-YS-003S	Yaesu	FT-1000/1000D	$49.99
REU-YS-005	Yaesu	FT-450/450D	$49.99
REU-YS-006	Yaesu	FT-950, FTDX-1200, FTDX-3000	$49.99
REU-YS-007S	Yaesu	FT-1000MP/MKV, FT-2000/D, FT-DX5000	$49.99
REU-YS-009S	Yaesu	FTDX-9000/9000D/9000MP	$49.99

USB to RS232 Radio Interface Cable

Give RS232 connectivity to your computer. Go from USB to RS232 male OR female with the included adapter. A link to all the drivers you'll need is at DXEngineering.com.

WMT-58206-1009 USB to RS232 Radio Interface Cable..... $34.95

bhi Noise Cancellation Products

ParaPro EQ20

BHD-EQ20B

Any audio engineer will tell you how valuable a parametric EQ can be. It allows you to boost/cut specific frequencies so you can fine-tune your audio on the fly for better voice copy. bhi's new ParaPro units combine a robust parametric EQ with a 20 watt audio amplifier. The controls are intuitive, allowing you to easily and quickly adjust the ParaPro's frequencies—a great Contesting companion.

bhi offers a ParaPro with a built-in adjustable noise canceling DSP unit, which will automatically filter out background noise and enhance the human voice. You can also get the ParaPro with Bluetooth® capability that lets you turn your wired speakers into wireless speakers. It's a smart way to clean up your shack's wiring and open up some unique installation possibilities.

BHD-EQ20	ParaPro EQ20	$236.99
BHD-EQ20B	ParaPro EQ20 with Bluetooth	$299.99
BHD-EQ20-DSP	ParaPro EQ20 with DSP Unit	$379.99
BHD-EQ20B-DSP	ParaPro EQ20 with Bluetooth and DSP Unit	$389.99

bhi Noise Cancellation Products

Compact In-Line DSP Noise Eliminating Module

Take high-performance noise cancelling into the field with his battery-powered option. It delivers bhi's latest noise suppression technology, and is small and rugged enough to be tucked into a duffle bag. The module is designed to work with headphones, but may also work with a compact, portable external speaker. A front-panel knob allows to you fine-tune your noise cancelling level.

BHD-COMPACTINLNE	Compact In-Line DSP Noise Eliminating Module	$251.99

bhi Noise Cancellation Products

Dual In-Line DSP Noise Eliminating Module

Many new radios (including most SDRs) have stereo audio capability. bhi's Dual In-Line accepts two separate audio signals to allow for stereo output. It can also be fed by two different signals, which is handy if you run multiple radios in your station. The dual outputs also mean you can monitor two separate signals at the same time. It also has separate seven watt audio and headphone outputs. It's an ideal DSP noise cancelling module for club events, Field Day or multi-radio DX stations.

BHD-DUAL-IN-LINE	Dual In-Line DSP Noise Eliminating Module	$299.99

bhi Noise Cancellation Products

Six Way and Mini Switch Boxes

Running multiple radios in your shack? bhi built a six-way switch to allow you to connect up to six radios to one of its noise cancelling modules or external speakers. It has three loaded (8 Ω) and three unloaded (low level) inputs. There's also a Mini Switch that uses a simple toggle switch to select one or two radios to a bhi module.

BHD-1042SWITCHBX	Six Way Switch Box	$45.99
BHD-MINI-SWITCH	Two Way Mini Switch Box	$32.99

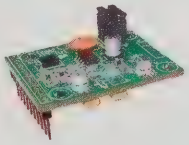
ANEM MKII Noise Away Module

Want to squash noise and RFI in your audio path, but don't enjoy fiddling with knobs? bhi has this "set-and-forget" solution. Simply install it between your radio and external speaker or headphones and it goes to work with its own adaptive noise cancelling DSP to provide you with crystal clear speech response. bhi makes the Noise Away module almost specifically for SSB radio communications, and it works extremely well on the HF and VHF bands.

BHD-ANEM-MKII	Noise Away Module	$202.99

bhi Noise Cancellation Products

Single and Dual Channel Audio Noise Suppression PCB Modules



Get up to 40 dB of noise suppression from a PCB the size of a cracker. These run noise-cancelling software tailored precisely to filtering out unwanted, ambient noise. The modules have their own onboard voltage regulation and clock oscillator, which is perfect for portable setups. The modules are available either as a standalone PCB or bundled in a kit with a wiring harness for retrofitting popular radio models and extension speakers. Find the full list of each kit's radio compatibility at DXEngineering.com.

BHD-NEDSP900	Dual Channel DSP PCB Module	$167.99
BHD-NEDSP1061KBD	Pre-wired Low Level Audio PCB Kit for Yaesu FT817/Icom/ Alinco/Kenwood	$155.99
BHD-NEDSP1062KBD	Pre-wired Amplified PCB Kit for Boosting Extension Speakers Like Kenwood SP-31, Yaesu SP-8	$162.99

DX ENGINEERING

New!

RXSHARE Audio Switch for Multi- and Single-Operator Contesting

In the heat of a contest, serious competitors are always looking for an edge that can push them to the top. The experts at DX Engineering understand the hurdles contesters face, especially when a pair of operators need to hear the same receiver outputs. The new RXSHARE Audio Switch gives two operators complete control of the specific audio they want fed to their stereo headphones, while either operating two separate radios or one shared radio. This means better coordination, fewer interruptions, less fatigue, and more QSOs. Each operator controls a three-position switch that allows them to listen to one, the other, or both channels of audio. These selections can be changed independently by each operator thanks to the unit's silent rocker switches.

In "Multi-Two" or "Multi-Single" contesting, the RXSHARE lets one operator hear when a new station is ready to be worked or when the other operator is going to work them. Using the RXSHARE in the "Separate Radios" mode, each operator may choose to listen to Radio 1 audio or Radio 2 audio in both ears, or either operator can listen to the audio from both radios in each ear. In the "Shared Radio" mode, the RXSHARE provides a convenient way of splitting the audio output of a single radio.

For single-operator/two-radio contesting, the operator can listen to the same audio in both ears from a single radio, or hear the audio from each radio in one ear for simultaneous CQ-ing and tuning for new contacts. Advanced operators can even manage two pileups at once on different bands.

The sturdy, stainless steel RXSHARE (10.50" W x 2.50" H x 3.25" D) features a clearly marked front panel and two sets of stereo headphone outputs including 1/4 inch (6.35mm) and 1/8 inch (3.5mm) stereo jacks to accommodate headphones or headsets with either type of plug.

DXE-RXSHARE	Audio Switch for Multi- and Single-Operator Contesting	$179.99

HEIL SOUND

Parametric Receive Audio System (PRAS)

Using three separate equalization controls, Heil's new Parametric Receive Audio System (PRAS) enables operators to enjoy clearer voice articulation in receive audio through more precise adjustments of midrange frequencies. The unit allows operators to adjust the parametric midrange filter from 400 Hz through 4 kHz, and control the presence of these midrange frequencies plus or minus 15dB. Combined with a low-frequency filter down to 160 Hz, and a high-frequency filter up to 6 kHz, the PRAS provides operators unparalleled control and quality of their receive audio. The package comes with Heil Powered Speaker (HPS-5). Specifically designed for use with PRAS, the speaker features a low-distortion, highly efficient Class D 24 watt amplifier that drives the specially designed 5" low-frequency driver with a 3" magnet mounted in a resonant sealed enclosure. A passive extended crossover drives a 2" high-frequency tweeter.

HLS-PRAS-PKG	Parametric Receive Audio System w/Powered Speaker	$499.00

bhi Noise Cancellation Products

Ground Breaker RFI Blocking Device

New!

For stations plagued by distorted audio bleed-through caused by RFI, the sound pros at bhi have an easy-to-install solution that works when all else fails. You've checked your connections, experimented with different power supplies, and upgraded your ground system. Still have RFI? Then put Ground Breakers to work. These nifty devices totally isolate the ground of your accessory audio equipment from those of the radio system. Units cover 10,000, 600 or 8 Ω. Line level units can handle up to 100 mW of audio (500 mW for the 8 Ω model). To install, simply plug the Ground Breaker into the appropriate socket on your radio and then plug in the audio accessory, such as the digital signal processor or powered speaker, into the socket on the Ground Breaker. Available for mono and stereo applications.

BHD-GB10KM	10,000 Ω Mono Ground Breaker	$43.99
BHD-GB10KS	10,000 Ω Stereo Ground Breaker	$43.99
BHD-GB600M	600 Ω Mono Ground Breaker	$43.99
BHD-GB600S	600 Ω Stereo Ground Breaker	$43.99
BHD-GB8M	8 Ω Mono Ground Breaker	$43.99
BHD-GB8S	8 Ω Stereo Ground Breaker	$43.99

WEST MOUNTAIN RADIO

Radio ClearSpeech Noise Reduction Speaker and Processor

WMT-58407-949

The CLRspkr is a compact, portable loudspeaker containing an adaptive DSP noise reduction circuit with a 10 watt audio amplifier. The ClearSpeech® adaptive DSP algorithms analyze the noise content of the incoming signal, then attenuate or completely remove hum, hiss, ignition and power line noise, static and heterodynes. What you hear is clean voice and CW with over 85% of the noise removed. If you have an external speaker that you like, the ClearSpeech DSP processor unit will give you the clean sound you want. It installs between your radio and the speaker.

WMT-58407-948	DSP Speaker	$199.95
WMT-58407-949	DSP Processor	$199.95

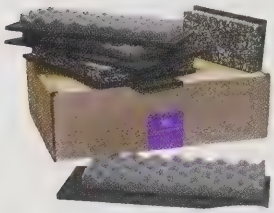
Check out our YouTube channel for in-depth tech tips and product demos!

DX ENGINEERING

Communications Speaker

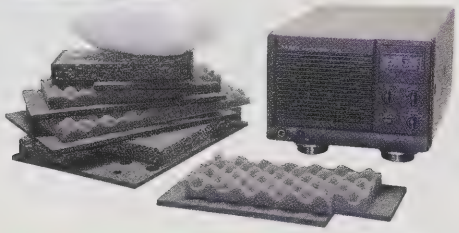
Plug in the speaker and bring out communication speech fidelity that you never knew existed. It restores the smooth sound of sine waves that CW naturally generates and makes it easy to copy. The ClearTone speaker improves speech intelligibility in the 600 to 4000 Hz frequency range while reducing undesirable noise static and hum. It has a 6' cord and 3.5mm mono plug. Output: 8 watts. Impedance: 8 Ω. Dimensions: 3.75" H x 3" W x 2.25" D.

DXE-281 ClearTone Speaker.....**$14.99**



PNE-K31

PHONEMA



PNE-Y8

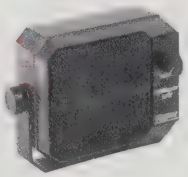
PHITS Acoustic Modification Kits

A speaker driver is only part of the equation. High quality acoustic reproduction requires a cabinet with the proper amount of baffling, porting and resonance. Phonema's Acoustic Modification Kits let you add specialized internal foam and filling to get the most out of your speaker's existing cabinet, without having to swap the driver.

PNE-I23A	Acoustic Modification Kit for Icom SP-23	**$49.99**
PNE-I34A	Acoustic Modification Kit for Icom SP-20, SP-34	**$55.99**
PNE-K23A	Acoustic Modification Kit for Kenwood SP-23, SP-120, SP-430	**$35.99**
PNE-K31	Acoustic Modification Kit for Kenwood SP-31	**$45.99**
PNE-K99	Acoustic Modification Kit for Kenwood SP-990	**$59.99**
PNE-Y2KA	Acoustic Modification Kit for Kenwood SP-2000	**$55.99**
PNE-TT07	Acoustic Modification Kit for Ten Tec 307	**$55.99**
PNE-Y8	Acoustic Modification Kit for Yaesu SP-8	**$55.99**
PNE-Y9K	Acoustic Modification Kit for Yaesu SP-9000	**$85.99**

WEST MOUNTAIN RADIO

PWRspkr Amplified Speaker



Packing 15 watts of amplification, this speaker is great for noisy shacks, loud mobile installations or radios with weak audio output. The PWRspkr is tailored to the 300-3200 Hz range for the human voice sweet spot. It features a 4.25" speaker, requires 13.8 Vdc, and includes a 6' audio cable and mounting bracket.

WMT-58406-947 15 Watt Amplified Speaker **$75.95**

PHONEMA

PNE-RHEA

Rhea Speaker

With a real sucupira wood finish reminiscent of a classic high-fidelity stereo console, Phonema's new Rhea speaker represents sound reproduction in its finest form. It incorporates acoustic-grade foam to deliver a tone well suited to CW and AM. The Rhea's 8 Ω driver handles 10 watts and is tailored precisely to today's modern radios from Kenwood, Yaesu and Icom. See all of the compatible radios at DXEngineering.com.

PNE-RHEA	Rhea Speaker for Kenwood, Yaesu and Icom	**$229.99**
PNE-RHEA-BK	Rhea Speaker for Kenwood, Yaesu and Icom, Black	**$229.99**

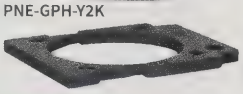
PHITS Acoustic Modification Kit for Icom SP-38

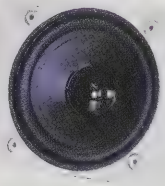
Take the next step in upgrading the sound quality of your Icom SP-38 external speaker by adding internal foam and filling designed specifically to produce less reverberation, better intelligibility, and improved frequency response. Easy to install, PHITS is a Phonema kit developed to acoustically improve communication speakers. It comes with tested materials and simple instructions to help maximize external speaker performance without the need to swap the driver.

PNE-I38 PHITS, Speaker Sound Quality Upgrade for Icom SP-38.....**$77.99**

PHONEMA

PNE-GPH-Y2K





PNE-GPH-K23

Speaker and Acoustic Modification Kits

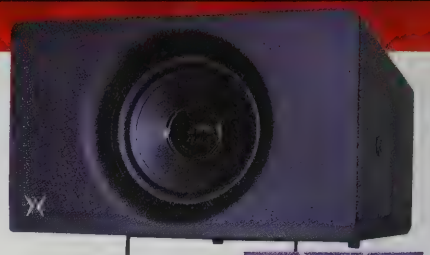
Phonema's standalone speakers offer exceptional fidelity and audio response, but what do you do if you've already got a favorite speaker on your desk? Phonema's speaker and acoustic modification kits are your answer.

GAMMA PHITS Speaker Modification Kits

These kits swap your existing driver for a superior-quality neodymium unit. The new driver boasts better frequency response and power handling capability. You'll find similar drivers in big-buck audiophile sound systems. These driver kits are also a smart replacement for an old or damaged driver.

PNE-GPH-I23	Speaker Driver Kit for Icom SP-23	**$29.99**
PNE-GPH-K23	Speaker Driver Kit for Kenwood SP-23*, SP-120, SP-430	**$35.99**
PNE-GPH-K23X	Speaker Driver Kit for Kenwood SP-23 with Plastic Face	**$35.99**
PNE-GPH-X90	Speaker Driver Kit for Kenwood SP-990, Yaesu SP-9000	**$35.99**
PNE-GPH-Y2K	Speaker Driver Kit for Yaesu SP-2000	**$42.99**
PNE-GPH-I34	Speaker Driver Kit for Icom SP-20, SP-34	**$39.99**

*Earlier, aluminum face SP-23 model only.



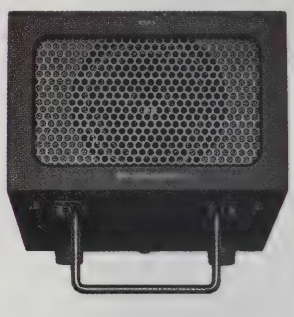
PHONEMA

Miranda Speaker

Phonema's all-new Miranda speaker is sized to perfectly complement the new compact radios from Icom, Kenwood, Ten Tec and Yaesu. The finely finished enclosure houses special acoustic damping material, 10 watt power handling and 8 Ω driver. The Miranda boasts a 80-18000 Hz frequency response and 83 dB sensitivity. This great looking and sounding speaker offers a rich and articulate sound that is perfect for listening to your radio transceiver or receiver.

PNE-MIRANDA Miranda Speaker for Icom, Kenwood, Ten Tec and Yaesu; **$159.99**

PHONEMA

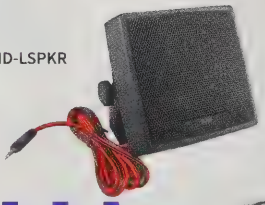


KSP3 Speaker

There's no denying the versatility of Elecraft K-series radios. But their built-in internal speaker system leaves a little bit to be desired. Phonema makes a high-fidelity standalone speaker tailored precisely to the Elecrafts' unique audio characteristics. The speaker is also an excellent aesthetic complement to the radios, offering a similar size and orientation.

PNE-KSP3 KSP3 Speaker for Elecraft K3 ...**$165.99**

BHD-LSPKR



BHD-SPKR8

bhi Noise Cancellation Products

Extension Speakers

These speakers are useful as extension speakers for your bhi in-line modules, or for any radio in your shack or mobile rig. The SPKR8 features a built-in passive noise filter for improved voice clarity.

Part Number	Power Handling	Impedance	Price
BHD-SPKR8	8 watts	8 Ω	**$31.99**
BHD-LSPKR	20 watts	4 Ω	**$31.99**

WEST MOUNTAIN RADIO

COMspkr Computer Speaker System

This amplified speaker system is optimized for close range operation with any radio transmitter. It features exceptionally high rejection of Radio Frequency Interference from 1 to 1000 MHz.

WMT-58409-950 COMspkr Computer Speaker System **$39.95**

bhi Noise Cancellation Products

NES10-2 MK3 Compact DSP Speaker

Here's an amplified DSP Noise Eliminating Speaker that is small enough to go in even the most cramped mobile rigs. It has fully adaptive DSP noise cancelling with eight filter levels. An intuitive rotary filter knob allows you to adjust the filtering by ear in real-time. It has an on/off switch with audio bypass.

BHD-NES10-2MK3 NES10-2 MK3 Compact DSP Speaker **$168.99**

bhi Noise Cancellation Products

DESKTOP DSP Noise Cancelling Speaker

Tailored towards a base station setup, the 10 Watt amplified DESKTOP speaker creates a sublime listening experience. It features bhi's legendary DSP noise cancelling technology along with a tweeter/bass driver combo that rivals home entertainment systems. It accepts either speaker- or line-level input, and has a separate headphone jack for using the speaker's DSP with your own headset.

BHD-DESKTOP DESKTOP DSP Noise Cancelling Speaker **$251.99**

DSPKR DSP Noise Cancelling Speaker

bhi Noise Cancellation Products

The DSPKR packs cutting-edge DSP technology into roughly the same size as a standard 4" extension speaker. Simply install it like a usual speaker, add a separate 13.8 Vdc source, and you're ready to remove unwanted noise and RFI from your audio. It boasts 10 watts of amplified power. A smart "sleep mode" automatically powers off the unit when it's not in use.

BHD-DSPKR DSPKR DSP Noise Cancelling Speaker **$198.99**

ICOM

Lightweight Headsets

You'll hardly even notice you're wearing one! These lightweight and versatile combination earpiece/microphone headsets deliver crystal clear sound reproduction. Regardless of the style you choose (over-the-ear or behind-the-head), they're a great option if you rely on your HT for hours of critical radio communications. Just listening? Grab Icom's single earpiece.

ICO-HS-94 Over-the-Ear Headset..... **$24.99**
ICO-HS-95 Behind-the-Head Headset; **$158.99**
ICO-SP-27 Tube Earpiece **$34.99**

More Headsets at DXEngineering.com

Missing Something?

We can't put everything we carry in our catalog. If you need a part from one of our manufacturers and you don't see it here, you'll probably find it at DXEngineering.com. If it's not listed online, call us, and we'll gladly special order it for you.

YAESU

Base Station External Speakers

YSU-SP-9000

Yaesu offers a pair of external speakers for your base station. They both offer adjustable audio filters, so you can really fine-tune to your audio tastes. Each one also has a dual set of inputs, so you can match one speaker to two radios. Though they're tailored to Yaesu radio models, they work equally well for any base station radio.

YSU-SP-2000 Base Station Speaker for FTDX-3000/5000 ..... **$219.99**
YSU-SP-9000 Base Station Speaker for FTDX-9000 ..... **$369.99**

YAESU

YSU-SP-10

SP-10 and SP-20 External Speakers

Capable of stunning audio reproduction well tailored to SSB and digital voice, these two all-new speakers from Yaesu are an excellent complement to your base station. Both speakers mate perfectly with a corresponding Yaesu transceiver.

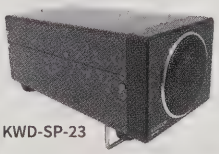
YSU-SP-10 Speaker for Yaesu FT-991 ..... **$169.99**
YSU-SP-20 External Speaker for Yaesu FTDX1200, FTDX3000D **$209.99**

YAESU

Mobile External Speakers

Rugged and compact, these handy speakers let you put your audio where you want it. They're a great solution to less-than-ideal radio installations, because you don't have to rely on the radio's own, built-in speaker. Each speaker comes with an attached 6.5' cable that terminates in a standard 1/8" phono plug. Mounting brackets are included. Got a station on your boat? The MLS-200-M10 is waterproof. The speakers are compatible with any radio that has a 1/8" external speaker jack.

YSU-MLS-100 Mobile External Speaker, Rectangle **$49.99**
YSU-MLS-200-M10 Mobile External Speaker, Round, for FTM-100/400DR..... **$49.99**



KWD-SP-23

KWD-KES-3S

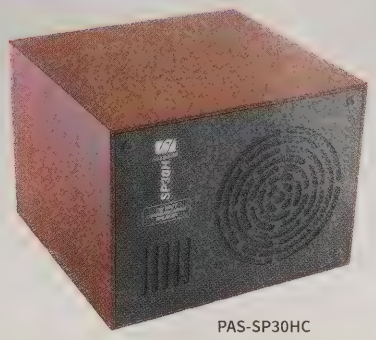
KENWOOD

External Speakers

Don't overlook the importance of a good external speaker in your station. After all, it's the final link in your signal chain. Kenwood borrowed from its storied history of offering high-fidelity audio components to create external speakers specifically tailored to Amateur Radio—including mobile applications.

KWD-KES-3S Mobile, 4 Ω, 3' Cord with 1/8" Male Plug **$39.99**
KWD-KES-5 Mobile, 4 Ω, 3' Cord with Stripped Leads **$45.99**
KWD-SP-23 Base, 8 Ω, RF Shielded, Screw Terminals..... **$84.99**
KWD-SP-990 Base, 8 Ω, RF Shielded, Pushbutton Filters **$289.99**

Palstar

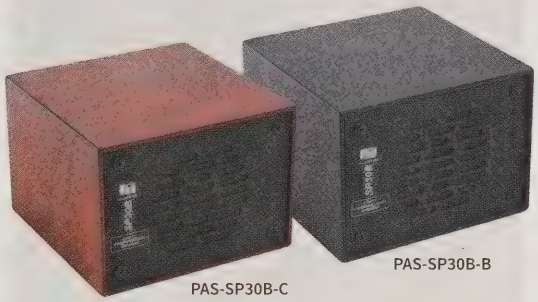


PAS-SP30HC

Ultimate Communications Speakers

Custom-engineered to reproduce the human voice, these speakers are well suited for the 55 kHz to 8 kHz range. They each feature a 6.5" speaker housed in a cabinet filled with acoustic dampening foam. They handle up to 20 watts of RMS power.

PAS-SP30HB Black Finish **$199.99**
PAS-SP30HC Cherry Finish **$199.99**



PAS-SP30B-C PAS-SP30B-B

Shortwave Radio Speakers

If you enjoy SWL, then these speakers can enhance that experience. They're tonally matched to Palstar's R30A, but are an excellent complement to any shortwave receiver. The speakers' compact design is perfect for your desk or nightstand.

PAS-SP30B-B SW Radio Speaker, Black Finish... **$99.99**
PAS-SP30B-C SW Radio Speaker, Cherry Finish; **$99.99**

ICO-SP-38

ICO-SP-30

ICOM

External Speakers

You've spent a lot of time and money perfecting your antenna and radio, now make sure that the last step—the audio delivery—has the same performance. Icom offers several speakers to help you better hear contacts and make more QSOs. Each speaker includes the appropriate hookup cable(s).

ICO-SP-38 External Speaker, Base Station Type, IC-7300 Companion **$174.99**
ICO-SP-30 External Speaker, Powered, 20 W **$99.99**
ICO-SP-23 External Speaker, Audio Filters, 5.750" Speaker **$289.99**
ICO-SP-34 External Speaker, Audio Filters, 7.875" Speaker **$329.99**
ICO-SP-35 External Mobile Speaker, Replaces SP-10 ..... **$59.99**
ICO-SP-41 External Speaker (new for the IC-7610) **$249.99**

Pro 7 Headsets

Using well-insulated ear pads and an innovative acoustic design, the Pro 7 Headsets' passive noise cancelling ability blocks out all the background noise, leaving just you and your radio. And since it's passive, you don't have to worry about eating batteries or any extra power draw. The Pro 7 series features a unique audio balance control, which allows one speaker's volume to be adjusted. The headsets' clever phase reversal switch lets you really dig out weak frequencies, and the mic boom can be used on either the right or left ear. Non-IC models require AD-1 series cable, see the table on page 32.

HLS-PRO7BK	Pro 7 Headset, Black, Dynamic	$277.00
HLS-PRO7BK-IC	Pro 7 Headset, Black, with AD-1-IC Cable, Electret	$290.00
HLS-PRO7BU	Pro 7 Headset, Blue, Dynamic	$277.00
HLS-PRO7BU-IC	Pro 7 Headset, Blue, with AD-1-IC Cable, Electret	$290.00
HLS-PRO7RD	Pro 7 Headset, Red, Dynamic	$277.00
HLS-PRO7RD-IC	Pro 7 Headset, Red, with AD-1-IC Cable, Electret	$290.00

Pro Micro Headsets

You'll typically find these headsets in commercial broadcast environments, thanks to their specially tuned HC-6 mic element. The headsets' unique mic characteristics and durable construction also make them an excellent choice for Ham Radio. Pro Micro Headsets include a microphone windscreen, and come with single or dual earphones. Non-IC models require AD-1 series cable, see the table on page 34.

HLS-PMD-6	Pro Micro Headset, Dual Side	$100.00
HLS-PMS-6	Pro Micro Headset, Single Side	$80.00
HLS-PMD-IC	Pro Micro IC Headset, Dual Side, with AD-1-IC Cable	$110.00
HLS-PMS-IC	Pro Micro IC Headset, Single Side, with AD-1-IC Cable	$92.00

Pro Set Headsets

Designed for Amateur Radio, the lightweight and versatile Pro Set Headsets work well in any shack setup. They feature Heil Sound's exclusive phase reversal switch, which can significantly improve copy during pileups.

Pro Set Elite Headsets take comfort and performance up a notch, with larger, more heavily padded earpieces. Non-IC models require AD-1 series cable, see the table on page 34.

HLS-PS-6	Pro Set Headset	$156.00
HLS-PS-IC	Pro Set iC Headset with AD-1-IC Cable	$168.00
HLS-PSE-6	Pro Set Elite Headset	$184.00
HLS-PSE-IC	Pro Set Elite iC Headset, with AD-1-IC Cable	$195.00

HLS-PSE-IC

BM-17 Emergency Communication Headsets

New!

HLS-BM-17D-IC

Any Amateur Radio operator who has ever been in the maelstrom of an emergency operation knows the value of a quality headset. Heil Sound's BM-17 series headsets have been built with urgent communications in mind, but are also great companions in the shack for whatever you have on your agenda. First, their lightweight but solid construction is ideal for keeping you comfortable, and the swivel-mounted boom makes moving the microphone in any position easy. The BM-17 features extremely sensitive speakers that don't require much AF drive from the transceiver; a frequency response of 200Hz-5kHz; and low distortion. The two BM-17 Dynamic versions come with a 500 Ω dynamic element (operating frequency response of 120Hz-10kHz). Two other models employ an electret element (operating frequency response of 35Hz-12kHz) for use with Icom radios to eliminate the low gain audio on some older and non-pro series rigs. Single and dual headphone versions available.

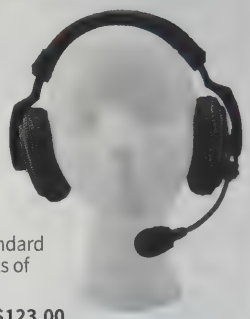
HLS-BM-17D-DYN	Boom Mic Dual Headphone w/Dynamic Element	$127.00
HLS-BM-17D-IC	Boom Mic Dual Headphone for Icom, w/Adapter	$150.00
HLS-BM-17S-DYN	Boom Mic Single Headphone w/Dynamic Element	$107.00
HLS-BM-17S-IC	Boom Mic Single Headphone for Icom, w/Adapter	$130.00

Professional Headphones

Whether you're listening to a distant shortwave broadcast or an old jazz LP, these headphones deliver exceptional sound reproduction. They include three different detachable cables, allowing you to select the correct length and connector you'll need. The cables terminate in an iPod/iPad-compatible 1/8" plug with a gold plated, screw-on 1/4" adapter. The replaceable earpieces are heavily padded for comfort.

HLS-PROSET-3	Professional Headphones	$111.00

Pro Set Media Pro Headset



Made to work specifically with your computer, this award-winning headset delivers beautiful articulate audio. The earphones are acoustically tuned and use Heil Sound's exclusive phase-reversing feature to create a spatial widening effect that makes audio easier to hear. The mic element is also tailored to sound card input requirements.

Pro Set Media Pro Headsets are plug-and-play, with two standard 1/8" plugs that connect to the microphone and speaker jacks of your computer.

HLS-PSM	Pro Set Media Pro Headset	$123.00

Lightweight Dual-Side Boomsets

Weighing a mere 3 ounces, these headsets are perfect for contesting, Field Day and any portable operation. They have an extremely sensitive mic element that draws very little power, making them great for QRP rigs. The cable has an integrated PTT switch, adding to the headsets' versatility. Non-IC models require AD-1 series cable, see the table on page 34.

HLS-BM-10-DYN	Lightweight Dual-Side Boomset	$131.00
HLS-BM-10-IC	Lightweight Dual-Side Boomset, with AD-1-IC Cable	$154.00

Handie-Talkie Headsets

Designed precisely for Amateur Radio handhelds, these Heil headsets let you work hands-free in the field. The slim, low profile design is discreet and lightweight, which means the headsets can be worn comfortably for hours. The single earpiece can be positioned on the left or right side. The headsets have a standard PTT switch. Select the one appropriate for your radio model below.

HLS-HTH-I	HT Headset for Icom 2-Pin Plug	$29.00
HLS-HTH-K	HT Headset for Kenwood 2-Pin Plug	$29.00
HLS-HTH-Y	HT Headset for Yaesu TRRS Plug	$29.00

Dual-Sided Handie-Talkie Headsets

HLS-HTHD-I	Dual-Sided HT Headset for Icom 2-Pin Plug	$33.00
HLS-HTHD-K	Dual-Sided HT Headset for Kenwood 2-Pin Plug	$33.00
HLS-HTHD-Y	Dual-Sided HT Headset for Yaesu TRRS Plug	$33.00

YAESU

Headsets and Earpieces

Don't be saddled with your HT all day. Grab one of these headsets or earpieces and work hands-free. Select from a traditional lightweight mono headset with a boom mic, or a low-profile earset. Each option has an inline PTT switch, and the smaller earpieces include a handy lapel clip to keep the controls close at hand. Select the one you want based on your Yaesu radio model below.

YSU-SSM-63A	VOX Headset for FT-1/2DR, FT-60R, VX-3R	$69.99
YSU-SSM-55A	Earpiece Lapel Mic for VX-6R, FT-270R	$39.99
YSU-SSM-57A	Earpiece Lapel Mic for FT-1/2DR, VX-3R, FT-60R	$39.99

Lightweight Stereo Headphones

Just listening tonight? Here's the perfect set of headphones. These comfy "cans" supply excellent sound reproduction. They come with a 4' audio cord and include a handy 1/8" phono to 1/4" phono jack adapter.

YSU-YH-77STA	Lightweight Stereo Headphones	$99.99

PRYME

Synergy Speaker Microphones

These are great replacement speaker mics, offering factory performance in a rugged and durable package. They have an integrated 3.5mm jack, so you can add an earphone (sold separately). The Synergy series is covered by Pryme's 2-Year limited warranty.

PRY-SPM-630	Synergy, Icom V80, I D-31A/51A and IP100H	$59.99
PRY-SPM-601	Synergy, Kenwood/Baofeng/ Wouxun, 2-Pin Connector	$59.99
PRY-SPM-602	Synergy, Yaesu, 1-Pin Connector	$59.99

Observer Speaker Microphones

Despite their small size, these speakers really pack a punch. The optimized design is acoustically tuned to deliver loud, crisp audio. The compact size means that Pryme's Observer series microphones are perfect for a lapel, belt or epaulet. Designed for light-duty use, the Observers' powerful sound output can slice through noisy environments. This series features a 1-year limited warranty.

PRY-SPM-130	Observer, Icom ID-31A/51A and IP100H	$28.99
PRY-SPM-101	Observer, Kenwood/Baofeng/ Wouxun, 2-Pin Connector	$28.99
PRY-SPM-102	Observer, Yaesu, 1-Pin Connector	$28.99
PRY-SPM-142	Observer, Yaesu, 1-Pin Screw Connector	$28.99

ALINCO

Desk Microphone

Made to work precisely with your Alinco radio, this sleek mic gives you up/down frequency control (when used with a compatible radio), plus a PTT switch with a lock for those longer ragchews. Its electret condenser capsule has adjustable gain control and is powered by your radio. Click this mic's applications tab at DXEngineering.com to see the list of compatible Alinco radios.

ALO-EMS-14	Desk Microphone	$119.99

ALO-EME-56A

ALO-EME-32A

Handheld Speaker Microphones and Earpieces

Ditch the bulky speaker mic with these compact setups. These mics are compatible with Alinco's most popular radios; visit their respective applications tab at DXEngineering.com to see which ones work with yours.

ALO-EME-32A	Speaker and Mic for Alinco DJ-G7T, -V17T, -V27T, -V47	$74.99
ALO-EME-56A	Speaker and Mic for Alinco DJ/500T, DJ-A Series	$34.99
ALO-EME-23A	Earphone & Mic for Alinco HTs;	$24.99
ALO-EME-13	Handheld Speaker Headset, for Most Alinco HTs	$69.99

KENWOOD

KWD-MC-60A

Desk Microphones

Kenwood's desk microphones are the best complement to the legendary sound of a Kenwood transceiver. They have a large, locking PTT switch, plus up/down tuning buttons (for compatible radios). There are two mic impedance settings, so they're compatible with Kenwood's earlier radios. Plus, the MC60A has a built-in preamplifier that offers an effective audio boost for older radios. (Newer radios will typically not have to use this feature, so it can be switched off without affecting the audio signal.)

Upgrading to the MC-90 Deluxe Desk Microphone adds a slew of audio fine-tuning adjustments. It also comes with two interchangeable heads that deliver distinct mid- and high-range audio frequency response, That means you can tailor your mic's sound to your voice, which is vital to creating that critical on-air "punch."

KWD-MC-60A	Desk Microphone	$139.99
KWD-MC-90	Deluxe Desk Microphone;	$239.99

KENWOOD

Communications Headphones

With a vintage vibe that hearkens back to Amateur Radio's golden era, Kenwood's Communications Headphones provide the perfect frequency response for CW, SSB, AM and FM copy. They're ideal for SWL, yet they're also plenty comfortable for long running contests when used with your Kenwood microphone.

KWD-HS-5	Communications Headphones	$75.99

INRAD international radio

New!

W1 Competition Headset

Whether you're contesting, DXing or rag chewing, INRAD's new W1 Headset comes with the features operators desire for hours of worry-free, comfortable operating. Weighing only 13 ounces, it includes cupped, over-the-ear earpieces that won't hurt after hours of use; thick rubberized foam padding at the top of the headband that molds to the head; the ability to tilt the headband back up to 30 degrees without moving the earpieces; large diaphragm high response speakers for clear articulation of receive audio; 600 Ω dynamic microphone element on adjustable long boom with exceptional transmit audio; and extra long 7' cable. Connect the 1/8" mono transmit audio jack on the headset to an INRAD M-series mic jack adapter and you're ready to operate for long sessions, without troubling fatigue.

INR-W1	Competition Headset	$179.00

Missing Something?

We can't put everything we carry in our catalog. If you need something from one of our manufacturers and you don't see it here, there's a good chance you'll find it at DXEngineering.com. If it's not listed online, call us, and we'll gladly special order it for you.

DX ENGINEERING

DXE-FS-001

DXE-FS-002

DXE-FS-003

Footswitches

Go hands-free and speed up your operating. These new PTT footswitches from DX Engineering blend performance and value. You have three options: a budget friendly rugged plastic model, the stalwart cast iron version, and a new style with an extra-wide pedal—perfect for enthusiastic stomps.

DXE-FS-001	Footswitch, Plastic	$29.99
DXE-FS-002	Footswitch, Iron	$69.99
DXE-FS-003	Footswitch, Wide Pedal	$99.99

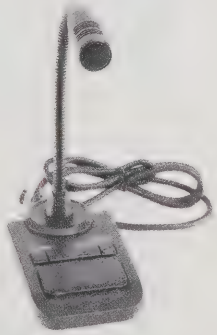
HEIL SOUND

Accessories to Complete Your Setup

This ergonomic switch lets you key your transceiver when using a microphone that doesn't have a PTT switch or when noisy environments render VOX operation impossible. It installs easily, terminating in a 1/4" phono plug.

HLS-HS-2	Pistol Grip Hand Switch	$33.00

ICOM



Desktop Microphones

Here are the perfect microphones for your Icom base radio. They're unidirectional and ideal for SSB and FM voice operation. Each mic features a PTT button with PTT Lock switch, adjustable mic output, and a low-cut switch. Both mics terminate in an Icom 8-Pin round female plug. There's a dynamic or an electric condenser mic option; select the one that best suits your operating style and environment—if you don't know, call us and we can help.

ICO-SM-30	Desktop Microphone, Electret Condenser	$139.99
ICO-SM-50	Desktop Microphone, Dynamic	$269.99

YAESU

Reference Microphone

Yaesu purpose-built this microphone to deliver the ultimate in Amateur Radio voice reproduction. It combines both an electret condenser and dynamic mic element, selectable separately or combined with independent adjustability to suit your unique voice characteristics.

The mic base incorporates a recorder/playback module to check out audio, plus a large graphic EQ and frequency response scope. Large buttons allow for near limitless adjustability. The mic itself can be fitted with the cowling to increase treble output. It can be configured for an 8-Pin round or modular connector.

YSU-M-1 Reference Microphone **$699.99**

YAESU

Desk Microphones

YSU-MD-100A8X

Made to Yaesu's strict performance standards, these microphones are tailor-made for your Yaesu base station. The MD100 Dynamic Desk Microphone is the one Yaesu recommends for all of its HF base station radios. It has a base-mounted PTT switch and comes with a reversible connector cable to make it compatible with all Yaesu radios.

Yaesu also makes the MD200 Ultra High Fidelity Desk microphone that delivers the uncompromised clarity you would expect from an audiophile-grade mic. The base has an integrated PTT switch and includes a reversible cable with an 8-Pin modular plug.

YSU-MD-100A8X Desk Microphone **$155.99**

YSU-MD-200A8X Ultra High Fidelity Desk Microphone **$409.99**

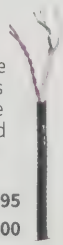
YAESU

Dual Element Desk Microphone

Yaesu's M-100 packs in all the audio performance of the M1 (without the equalizer and display features). It supports a wide range of Yaesu rigs, including the FTDX 9000, FTDX 5000, FTDX 3000, FTDX 1200, FT-991A, FT-891 and FT-450 Series. Recommended for all voice modes from SSB to C4FM, the M-100 can be operated with punchy transmit audio for effective DXing and contesting. Other features include a dynamic element and condenser (electret) element, air cylinder/magnetic switch for effortless PTT, manually selectable low and high cut, and a pedestal-base mount for isolated vibration and purer sound.

YSU-M-100 Dual Element Desk Microphone **$459.99**

Heil Wire Bulk Microphone Cable



Specifically designed for mics, switches, keys, paddles and other audio/control devices, this cable consists of two 18 AWG shielded internal wires plus two 18 AWG wires external to the braid. Heil's cable is specially shielded to reduce hum, PTT pulses and RFI. It is made to fit neatly into 1/4 inch connectors and receptacles.

HLS-HW-10 Microphone Cable, 10 Feet; **$14.95**

HLS-HW-20 Microphone Cable, 20 Feet; **$23.00**

HLS-HW-50 Microphone Cable, 50 Feet; **$56.00**

PR 10 Microphone Package

The PR 10 combines a desk stand, boom and a microphone that exhibits outstanding speech articulation with perfect balance of highs and lows. The mic's frequency response makes the PR 10 an excellent choice for radio communication. The sturdy base is accented by LED lighting and the counterweighted boom offers several angles of articulation. It requires a Heil Sound CC-1 series XLR cable; find the right one for your radio at DXEngineering.com.

HLS-PR10 PR 10 Microphone Package **$277.00**

iCM Microphone

Owners of early Icom transceivers know that they don't have a lot of gain in the microphone preamp stage. Heil Sound gives you a boost with a mic specifically suited to those transceivers. Heil Sound worked closely with Icom engineers to build a mic with an excellent frequency response, coupled with a higher output to compensate for the lack of gain from early Icom transceivers. Includes cable with 8-Pin round mic connector.

HLS-ICM iCM Microphone **$119.00**

Microphone Booms and Riser

Don't put your prized microphone on anything less than a professional-grade Heil Sound Boom. These quiet booms are sturdy and durable enough to go in the most active Ham shacks and sound studios. All booms are threaded to accept standard mic accessories and are the perfect compliment to your Heil Sound Microphone. The Riser is a great solution for mounting your boom behind your transceiver.

HLS-PL2T Topless Proline Microphone Boom **$121.00**

HLS-HB-1 Large, Articulated Microphone Boom **$71.00**

HLS-SB-2 Straight Boom, 17" with Stealth C-Clamp **$64.00**

HLS-RS1 Boom Riser **$29.00**

Microphone Boom/Arm Mounts available in several styles, these genuine Heil Sound mounts are the ideal way to secure your boom and keep your valuable microphone safe.

HLS-FL-2 Flange Mount **$29.00**

HLS-DT1 Desktop Flush Mount **$36.00**

HLS-WM1 Vertical Surface Mount **$23.00**

HLS-PL2CLAMPR Replacement Mount for PL2T/SB-2/HB-1 ..... **$23.00**

Shock Mount

HLS-SM-1

Using an 8-point suspension support system, these mounts fight off low frequency rumble and absorb noise caused by vibration and impact. The SM-1 is designed for slim-line Heil Sound microphones' 1" stem, while the PRSM is tailored to larger diaphragm professional-grade mics' 2" stem. It's important to check your microphone's fit before ordering.

HLS-SM-1 Shock Mount **$81.00**

HLS-PRSM-B Shock Mount, Black Finish **$106.00**

HLS-PRSM-C Shock Mount, Champagne Finish **$106.00**

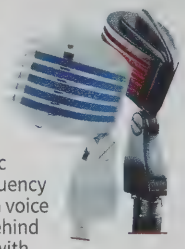
HM-10XD Microphone

New!

Heil Sound has redesigned its popular HM-10 microphone into a versatile unit that combines both narrow and full smooth response elements, enabling operators to easily switch between full range response for everyday rag-chews and a narrow DX element designed for punching through pileups. With Heil's new HC-5X and HC-4X elements mounted on an acoustically tuned chamber, the HM-10XD can cover all your communication needs in one well-built microphone. The HC-5X (wide) element delivers +6 dB rise at 2,500 Hz for great articulation to your signal whenever you need it. For serious DXers, the new HC-4X (narrow) element places a +10 dB rise at 2,500 Hz, helping your call sign cut through the clutter. The HM-10XD comes equipped with a microphone clip and a foam windscreen. A CC-1 adapter is required to interface with your transceiver.

HLS-HM-10XD Switch Selected Dual Dynamic Element Mic **$140.00**

"The Fin" Microphone



The Fin recreates a classic vintage vibe, but uses a modern voice coil similar to Heil Sound's famous PR 20 dynamic microphone. You get excellent frequency response, specifically in the human voice sweet spot. Vibrant LEDs hidden behind the windscreen activate when fed with phantom power. This mic has a 3-Pin XLR plug.

Show Chrome Finish

HLS-FIN The Fin, Blue LEDs **$221.00**

HLS-FINR The Fin, Red LEDs **$242.00**

HLS-FINW The Fin, White LEDs **$242.00**

Black Finish

HLS-FIN-BK-BL The Fin, Blue LEDs **$221.00**

HLS-FIN-BK-RD The Fin, Red LEDs **$242.00**

HLS-FIN-BK-WT The Fin, White LEDs **$242.00**

Heritage Microphone

Similar-looking mics have graced recording booths, news desks, and late night shows since the dawn of broadcasting. The Heritage Microphone retains Heil's legendary sound reproduction, delivering the clarity and response that's perfect for Amateur Radio. This dynamic mic has a wide audio spectrum, making it well suited to PA and recording studio applications. It has a 3-Pin XLR connection.

HLS-HHG Heritage Microphone, Show Chrome Finish **$187.00**

HLS-HHGB Heritage Microphone, Black Finish **$187.00**

Microphone Base Stand

Improving upon a timeless design, these heavy, polished chrome bases include a PTT switch that can also be used as a "cough" switch. It uses standard mic mounting threads and a 24" jumper cable is included to make mic installation a breeze.

HLS-CB-1-PTT Microphone Base Stand **$79.00**

Illuminated Microphone Bases

Heavy, durable and accented by colored LEDs, these Heil Sound microphone bases will add a dash of style to your shack. They have a PTT switch and work with most Heil Sound mics and accessories. You can select when you want the battery-powered LEDs to illuminate, either all the time or when the PTT switch is pressed. (The LEDs can also be turned off completely.) Choose either the LB-1R with a bright red base, or the sleek LB-1B with a black finish.

HLS-LB-1R Illuminated Microphone Base, Red ... **$100.00**

HLS-LB-1B Illuminated Microphone Base, Black; **$100.00**

PR 77 Microphone

Styled after the classic RCA 77, this mic is perfect for podcasts, desktop recording and (of course) Amateur Radio. The PR 77 boasts excellent speech articulation and selectable frequency response—simply flip the body-mounted switch to choose the best characteristics for either music or voice reproduction. This dynamic mic has a cardioid pickup pattern with high rear and side rejection, which makes it a great option for a shack with a lot of ambient noise.

HLS-PR77 PR 77 Microphone.....$249.00

PR 77D Microphone

Give your shack the same professional-quality dynamic microphone enjoyed by commercial broadcasters, podcasters, performers, recording artists, and anyone who demands a smooth, flat response over a wide frequency range. The PR 77D delivers excellent transient response, great speech articulation, and low IMD. Take advantage of 180-degree, off-axis rear rejection of over 40 dB, a bass EQ switch, and a front pattern that allows you to move about freely in front of the element with no change in response. A CC-1 XLR cable is required to interface with Amateur Radio rigs.

HLS-PR77D Wide Range Dynamic Microphone, Black.....$249.00

HLS-PR77DP Wide Range Dynamic Microphone, Purple.....$249.00

HM-12 Genesis Series Microphone

A Microphone designed specifically for you, the Ham radio operator. Made to work well with almost any low-impedance transceiver, this microphone is well suited to reproduce the human voice. It also features an internal windscreen to cut down on annoying P-pops. This mic uses a 4-Pin XLR connector with a soft touch PTT switch wired to pins 3 and 4, while pins 1 and 2 carry audio.

HLS-HM-12 Genesis Series Microphone.....$72.00

PR 781 Microphones

Heil gives you a professional-quality microphone that will provide years of service in your shack. Building upon the legendary PR 780, these dynamic cardioid microphones feature a wide frequency response that retains the signature Heil Sound voice articulation.

The PR 781 works well with practically any high-quality transceiver. In fact, you'll find these same mics used in many commercial broadcast studios. This mic uses a 3-Pin XLR plug.

HLS-PR781 PR 781 Mic, Black Screen $200.00

HLS-PR781G PR 781 Mic, Gold Screen.....$220.00

PR 40 Microphone

With the widest frequency range of any dynamic mic in the PR series, this microphone is the workhorse of professional sound recording studios. It features a shock-mounted, low mass diaphragm, which gives you stellar sound reproduction in a durable chassis. An internal filter prevents dreaded breath blast and cuts down on P-pops, too. This microphone is simply one of the best all-around mics for audio engineers and Ham operators alike. This mic uses a 3-Pin XLR plug.

HLS-PR40 PR 40 Microphone.....$328.00

PR 22 Microphone

A mic that's equally suited to the stage or shack. This microphone has exceptionally low handling noise and is extremely rugged, which means it can double as a PA mic for your next club meeting. The PR 22 delivers rich, broad and crisp audio. The utility series comes with a stainless mesh screen, mic stand clip, foam windscreen and zippered pouch.

HLS-PR22-UT PR 22 Microphone, Utility Series, 3-Pin XLR.....$117.00

Handi Mic Microphones

These mics are the answer to muffled audio response. Well-suited to Amateur Radio use, they capture crisp, clean and articulate audio. Their rugged internal shock mount makes them a durable addition to your shack. They also feature low noise handling characteristics, making them great for use in mobile or field applications. A dash/wall mount and windscreen are included. This mic uses a 4-Pin XLR plug. The Handi Mic iC uses a high-performance output specifically tailored to Icom transceivers. The Handi Mic Pro contains the wide-range broadcast element, ideal for VHF FM rigs.

HLS-HM-IC Handi Mic iC.....$91.00

HLS-HM-PRO Handi Mic Pro.....$91.00

GM Series Microphone

The gold standard of radio microphones—Heil Sound's GM Series mics offer crystal-clear audio response. They feature an exclusive light-touch PTT switch and a 4-Pin XLR connector, and include a mic clip and windscreen.

The GM Vintage Microphone is tailored to full-range articulate SSB audio, particularly when paired with some high-impedance inputs typically found on older tube-type equipment.

HLS-GM-V GM Series Vintage Microphone $162.00

Gold Elite Microphone

Heil Sound specifically crafts this microphone for the Ham radio community. The microphone includes two distinct dynamic elements, selectable with the flip of a switch. The "Wide" setting is ideal for general voice articulation. The "Narrow" setting accentuates the lower frequency range of human voice to help smooth out the audio response. This mic uses a 4-Pin XLR plug.

HLS-GM-ELITE Gold Elite Microphone ... $164.00

PTT Desk Stand

Built for INRAD microphones and other standard stage mics with 1 inch bodies, this great-looking PTT desk stand features a large push-to-talk bar switch that lets you comfortably execute long transmissions by locking it in place. Simply slide the switch to the right to release. The stand's hefty 2 1/2 lb. metal base keeps it from sliding, and a rubberized clip makes mounting your microphone easy. A circular rubber ring in the threaded base for the standpipe and mic clip provides an integral shock mount for noise isolation. Choose one required INRAD coiled cord adapter cable terminated with 4-Pin XLR female and a specific transceiver microphone female connector.

INR-DMS-1 PTT Desk Stand $79.00

INR-DM-I INRAD DMS-1 Adapter Cable for Icom 8-Pin Round Mic Input.....$16.95

INR-DM-K INRAD DMS-1 Adapter Cable for Kenwood 8-Pin Round Mic Input.....$16.95

INR-DM-Y INRAD DMS-1 Adapter Cable for Yaesu 8-Pin Round Mic Input.....$16.95

INR-DM-YM INRAD DMS-1 Adapter Cable for Yaesu 8-Pin Modular Mic Input $16.95

Hit the Air

Whether it's a long-haul contest or a casual ragchew, the fun of our hobby is being on the air. We only carry products that improve your on-air experience, gear that allows you to hear and be heard. And we're always adding more. Visit DXEngineering.com and see what's new.

Microphones

INRAD has just introduced a line of quality microphones boasting performance and value for Hams at every level. Each one has its own specialized dynamic element and unique style. They all come with a 3-Pin XLR to 1/8" adapter cable for easy hookup. Certain radios may require an additional adapter, see below.

M629

Tailored to modern radios including the latest SDRs, the M629 has a brilliant cardioid dynamic element with excellent frequency response.

INR-M629 M629 Microphone $79.00

M650

One of INRAD's most popular mics, with audio response similar to the M628 and M686. It has a cardioid element and internal breath screen.

INR-M650 M650 Microphone $79.00

M686

Excellent transmit audio, reminiscent of the M629 and M650, with a black metal frame, cardioid element, and internal breath screen.

INR-M686 M686 Microphone $69.00

M665

Retro chrome look and unidirectional element with bright midrange and a built in filter to mitigate breath noise and p-pops.

INR-M665 M665 Microphone $69.00

M628

Value-priced counterpart to the M650, boasting a similar cardioid element with a focused 40 Hz to 15 kHz response that's well suited to SSB.

INR-M628 M628 Microphone..... $59.00

Accessories

INR-M-I Adapter for Modern Icom 8-Pin Mic Jack.....$14.95

INR-M-K Adapter for Kenwood 8-Pin Mic Jack $14.95

INR-M-Y Adapter for Yaesu/Flex/Ten-Tec 8-Pin Mic Jack $14.95

INR-M-YM Adapter for Yaesu Modular RJ-45 Mic Jack $14.95

INR-M605 Desk Stand with Mic Clip.....$99.99

INR-M-HS PTT Hand Switch $5.95

Cables and Adapters

These assemblies let you connect your Heil Sound mics and accessories to your transceiver. Depending on the application, they include the manufacturer-specific plugs for your mic/headset, PTT switch and transceiver. If you need help choosing the right adapter, visit DXEngineering.com, select your mic or headset, and the "suggested parts" tab will show you some options.

Part Number	Description	Price
Icom		
HLS-AD-1-I	Pro Set 8-Pin Adapter Cable	$24.00
HLS-AD-1-IM	Pro Set Modular Adapter Cable	$24.00
HLS-AD-1-IC	Pro Set 8-Pin Adapter Cable	$24.00
HLS-AD-1-ICM	Pro Set Modular Adapter Cable	$24.00
HLS-CC-1-I	XLR4 to 8-Pin Mic Cable	$40.00
HLS-CC-1-IM	XLR4 to Modular Mic Cable	$40.00
HLS-CC-1-XLR-I	XLR3 to 8-Pin Mic Cable	$40.00
HLS-CH-1-I8	XLR4 to 8-Pin Mic Coil Cable	$27.00
HLS-CH-1-IM	XLR4 to Modular Mic Coil Cable	$27.00
HLS-HSTA-IC8	Traveler Headset Adapter, Icom 8-Pin	$27.00
HLS-HSTA-IM	Traveler Headset Adapter, Icom Modular	$27.00
HLS-HTA-IHT	Traveler Headset Adapter, Icom HT Dual Plug	$27.00
Kenwood		
HLS-AD-1-K	Pro Set 8-Pin Adapter Cable	$24.00
HLS-AD-1-KM	Pro Set Modular Adapter Cable	$24.00
HLS-CC-1-K	XLR4 to 8-Pin Mic Cable	$40.00
HLS-CC-1-K4	XLR4 to 4-Pin Mic Cable	$40.00
HLS-CC-1-KM	XLR4 to Modular Mic Cable	$40.00
HLS-CC-1-XLR-K	XLR3 to 8-Pin Mic Cable	$40.00
HLS-CH1-K8	XLR4 to 8-Pin Mic Coil Cable	$27.00
HLS-CH-1-KM	XLR4 to Modular Mic Coil Cable	$27.00
HLS-HSTA-K8	Traveler Headset Adapter, Kenwood 8-Pin	$27.00
HLS-HSTA-KM	Traveler Headset Adapter, Kenwood Modular	$27.00
HLS-HTA-KHT	Traveler Headset Adapter, Kenwood HT Dual Plug	$27.00
Yaesu		
HLS-AD-1-Y	Pro Set 8-Pin Adapter Cable	$24.00
HLS-AD-1-Y4	Headset 4-Pin Adapter Cable	$24.00
HLS-AD-1-YM	Pro Set Modular Adapter Cable	$24.00
HLS-CC-1-Y	XLR4 to 8-Pin Mic Cable	$40.00
HLS-CC-1-YM	XLR4 to RJ45 Modular Mic Cable	$40.00
HLS-CC-1-XLR-YB	XLR3 to 8-Pin Mic Cable, PTT Connector	$40.00
HLS-CC-1-XLR-YM	XLR3 to 8-Pin Modular, Balanced	$40.00
HLS-CH-1-Y8	XLR4 to 8-Pin Mic Coil Cable	$27.00
HLS-CH-1-YM	XLR4 to Modular Mic Coil Cable	$27.00
HLS-AD-100	Yaesu 8-Pin Round to 6-Pin Modular Adapter	$24.00
HLS-ADMY-817	Yaesu 8-Pin Mic to FT-817-450 Modular Adapter (-897,-991)	$30.00
HLS-HSTA-YM	Traveler Headset Adapter, Yaesu 8-Pin Modular, RJ45	$27.00
HLS-HSTA-YM6	Traveler Headset Adapter, Yaesu 6-Pin Modular, RJ45	$27.00
HLS-HTA-VX	Traveler Headset Adapter, Yaesu 1/8" 4-Conductor Plug	$27.00
Miscellaneous		
HLS-HSTA-PC	Traveler Headset Adapter, Computer, Data/SP/Mic Plugs	$27.00
HLS-CC-1-T	Microphone Adapter, TEN-TEC, XLR4 to 4-Pin	$40.00
HLS-AD-1-C	Headset Adapter, Collins/Drake, 3/16" Plug, 1/4" Jack	$30.00
HLS-AD-1-T	Headset Adapter, TEN-TEC, 4-Pin, 1/4" Jack	$24.00
HLS-CC-1-C	Microphone Adapter, Collins/Drake, 4-Pin to XLR4	$49.00
HLS-CC-1-XLR-3	Mic Cable with Connectors, 3-Pin XLR Male to Female, 8'	$40.00
HLS-CC-1-XLR-4	Mic Cable Adapter, for XLR4 HM/GM Mics to XLR3	$40.00

Genuine Heil Parts and Accessories

If you want to give your mic or headset a tune-up, then Heil Sound offers you accessories and replacement parts to do it. If you're looking for a specific part, don't hesitate to let us know and we'll do our best to find it for you.

Part Number	Description	Price
HLS-HBA	Bluetooth® Adapter	$119.00
HLS-BAG1	Headset Gear Bag for Pro Set	$29.00
HLS-BC	Boom Clip for Pro Set	$8.95
HLS-PS-EPC	Ear Pad Covers for Pro Set (Pair)	$10.95
HLS-EP-FOAM-PS	Foam for Pro Set Ear Pads (Pair)	$7.95
HLS-EP-PSP	Ear Pads for Pro Set Plus/Elite (Pair)	$10.95
HLS-EP-PMP	Ear Pads for Pro Micro/New Traveler (Pair)	$10.95
HLS-EP-PS	Ear Pads for Pro Set Series (Pair)	$10.95
HLS-EP-BM-BLACK	Ear Pads for BM Series (Pair)	$8.95
HLS-HMCLIP	Clip for GM/HM/PR Mics, 5/8"-27 Thread	$11.95
HLS-WSHM	Windscreen for Handi Mic Series	$9.95
HLS-WSM	Windscreen for PR 20/35 and GM Mic	$9.95
HLS-WSPR40	Windscreen for PR 30 and PR 40 Mic	$21.00
HLS-WSPS	Windscreen for Pro Set Mic	$8.95
HLS-WSPSP	Windscreen for Pro Set Plus Mic	$8.95
HLS-WSTRAV	Windscreen for Traveler Headset Mic	$8.95
HLS-XLR-3F	3-Pin XLR Female Connector	$8.95
HLS-XLR-3M	3-Pin Male XLR Connector	$8.95
HLS-XLR-4M	4-Pin XLR Male Connector	$8.95
HLS-XLR-4F	4-Pin Female XLR Connector	$8.95
HLS-XT-1	High-to-Low Impedance Matching Transformer	$18.00
HLS-HC51RETROKIT	Mic Element Upgrade Kit	$68.00

Pro 7 Contest/DX Element

If you've got a Pro 7 headset and do a lot of contesting, you may want to swap out the stock mic element for this purpose-built unit. It's a modified version of the venerable HC-4 element, with a sharp roll-off at 600 Hz and a 10 dB boost between 25-30 kHz. Those tweaks allow for clear, articulate voice reproduction that works well in busting through pileups.

HLS-PRO74-DYNELE Pro 7 Contest/DX Element.... **$69.95**

Portable Canopy Shelter

Going into the field or to a Hamfest? Protect yourself and your gear from rain and sun with this durable 10' x 10' canopy. It's made from black polyester fabric supported by a rugged metal frame. Better still, the canopy collapses down into an included carrying bag for easy transport.

DXE-CANOPY Portable Canopy Shelter... **$129.99**

DX Engineering Tote Bag

This canvas tote bag can fit Hamfest handouts, a small QRP rig, your HT or Field Day munchies. It's made of heavy-grade canvas to resist rips and tears, and the bottom is reinforced to handle additional weight. There are inside and outside pockets to secure your small stuff. Plus, the bag's wide straps mean you can lug it around comfortably for hours.

DXE-TOTE Tote Bag **$35.99**

DX Engineering Sport Bag

An ideal travel companion, this sport bag can hold everything from your spare cables and gear to an extra pair of socks for soggy Field Days. Made from polyester cloth with a PVC coating for moisture resistance. The padded foam bag has several zippered pockets—including one big enough for a pair of shoes. The bag's detachable strap makes it easy to sling over your shoulder.

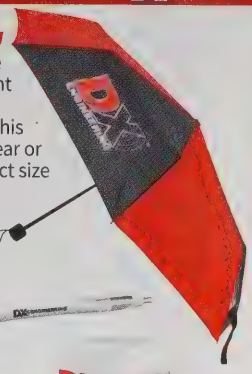
DXE-SPORTBAG2017 Sport Bag **$42.99**

Coffee Mugs

Be the envy of your club with a bonafide Ham Radio mug, or go on the road with the ARRL Insulated Travel Tumbler. The tumbler has a spill-resistant cap so you won't accidentally douse your radio with coffee.

ARR-1016	ARRL Diamond Logo Mug	**$13.95**
ARR-2082	ARRL Collegiate Initiative Mug;	**$12.00**
VIB-COFFEMUG	Vibroplex Mug	**$8.95**
DXE-COFFEEMUG	DX Engineering Mug, White	**$7.99**
DXE-MUG-2016	DX Engineering Mug, Black	**$14.99**

DX Engineering Umbrella



It's an excellent way to keep the sun from baking your equipment (or your neck) during Field Day. With a large, 36 inch diameter, this umbrella can cover you, your gear or the XYL. It collapses to a compact size and includes a carrying pouch.

DXE-UMBRELLA **$7.99**

DX Engineering Shack Accessories

What better way to write down your DX Engineering part numbers than with an authentic DX Engineering Pen and Note Cube? Better yet, your mouse can glide over to DXEngineering.com on an ultra-cool Mouse Pad!

DXE-PEN-2016	Pen	**$2.99**
DXE-NOTECUBE	Note Cube	**$9.99**
DXE-MOUSEPAD	Mouse Pad	**$8.99**

Pocket Pad

With no batteries to charge and no software to update, our new Pocket Pad is a handy way to record notes and ideas. Better yet—it's compatible with both pen AND pencil. The Pocket Pad is the perfect size for a shirt pocket and has 80 lined notebook pages.

DXE-POCKET-PAD Pocket Pad **$6.99**

DX Engineering Folding Chair

Made from water-resistant poly-canvas, this durable chair is designed for heavy-duty use. This folding chair supports 350 lbs. and is big enough to be comfortable! It also has an HT or beverage holder in one arm—Brown 807s anyone?

It's perfect for extra seating on the deck or in the yard. When you're looking for a new camp-type folding chair, remember this rugged, large DX Engineering Folding Chair.

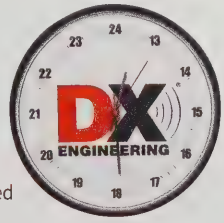
DXE-FC-1BK Folding Chair with Bag **$19.99**

DX Engineering Ball Cap

Arm yourself with the latest in sun blocking, head-covering technology—the DX Engineering Ball Cap. Straight from the Paris runway, this fashionable cap proudly displays the full-color DX Engineering logo. It's fully adjustable, for style-conscious Amateur Operators of all sizes.

DXE-HAT Ball Cap..... **$9.99**

24 Hour Wall Clock



Since you're probably logging on 24 hour time (UTC), why not have a clock that gives it to you. As an added bonus, the 12" clock proudly sports the DX Engineering logo. It runs on a single AA battery (not included).

DXE-WALLCLOCK 24 Hour Wall Clock..... **$29.99**

DX Engineering Polo Shirts

When your next club event or Hamfest calls for business casual attire, reach for your DX Engineering polo shirt. They're made of a lightweight, breathable polyester weave for outdoor and indoor comfort. They're available in men's and women's styles and sizes.

DXE-TMA-10031	Polo Shirt, Men's Medium	**$31.99**
DXE-TMA-10032	Polo Shirt, Men's Large	**$31.99**
DXE-TMA-10033	Polo Shirt, Men's X-Large	**$31.99**
DXE-TMA-10034	Polo Shirt, Men's 2X-Large	**$33.99**
DXE-TMA-10035	Polo Shirt, Men's 3X-Large	**$35.99**
DXE-TMA-10041	Polo Shirt, Women's Medium	**$31.99**
DXE-TMA-10042	Polo Shirt, Women's Large	**$31.99**
DXE-TMA-10043	Polo Shirt, Women's X-Large	**$31.99**

DX Engineering T-Shirts

Ham Radio shirts are a great way to meet other Operators and make some eyeball QSOs. These 100% cotton shirts come in one of three colors and feature the DX Engineering logo. We've added a new design which has the logo on the back too, so you can show off your Ham pride coming or going.

White, Single Logo, Embroidered

DXE-TMA-10019	Large	**$13.99**
DXE-TMA-10020	X-Large	**$13.99**
DXE-TMA-10021	2X-Large	**$16.99**

Black, Single Logo, Embroidered

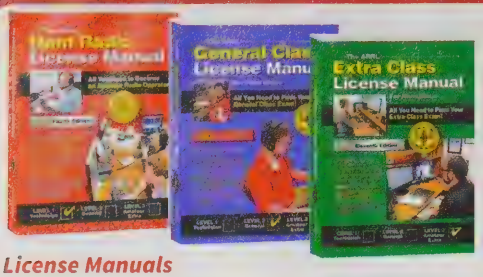
DXE-TMA-10016	Large	**$13.99**
DXE-TMA-10017	X-Large	**$13.99**
DXE-TMA-10018	2X-Large	**$16.99**

Black, Dual Logos, Silkscreened

DXE-TMA-10061	Small	**$9.99**
DXE-TMA-10062	Medium	**$9.99**
DXE-TMA-10063	Large	**$9.99**
DXE-TMA-10064	X-Large	**$9.99**
DXE-TMA-10065	2X-Large	**$11.99**
DXE-TMA-10066	3X-Large	**$11.99**

Pink, Women's Sizes, Embroidered

DXE-TMA-10051	Medium	**$17.99**
DXE-TMA-10052	Large	**$17.99**
DXE-TMA-10053	X-Large	**$17.99**
DXE-TMA-10054	2X-Large	**$18.99**



License Manuals

For decades, Amateur Operators have trusted the ARRL License Manuals to help them pass their exams. The books include easy-to-understand lessons and a comprehensive set of sample exam questions. They're the perfect companion for the ARRL's Exam Review for Ham Radio™ online resource available for free at ARRL.org. Study guides purchased from DX Engineering always contain the current FCC question pools.

ARR-0871	Tech Class License Manual	$29.95
ARR-0307	General Class License Manual	$29.95
ARR-0451	Extra Class License Manual	$29.95

Heil Sound

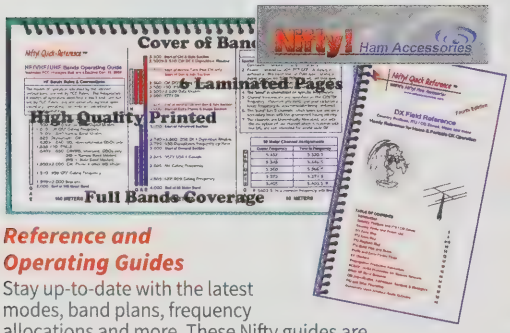
It All Starts with the Microphone Book

Written by the legendary Bob Heil K9EID, this is one of the best primers in microphone theory available. From microphone types to their applications, K9EID demonstrates exactly how, when and why to properly use a microphone to achieve the sound you want. It's a great read for Amateur Operators, musicians, audiophiles or audio engineers.

Heil Ham Radio Handbook

Featuring 128 pages that are chock full of useful information, Bob's book will take you from very basic Ham Radio principles to advanced technologies. Bob's easy, conversational style of writing for technical subjects will help you to quickly understand what radio (and audio) is all about.

HLS-PROBOOK	It All Starts with the Microphone Book	$16.95
HLS-HHB	Heil Ham Radio Handbook	$16.00



Reference and Operating Guides

Stay up-to-date with the latest modes, band plans, frequency allocations and more. These Nifty guides are indispensable resources for your shack, EMCOMM trailer or club library. DX Engineering also has over 100 of Nifty Reference Guides and Quick Reference Cards, covering a wide range of Amateur Radio equipment. Visit DXEngineering.com to see them all.

Part Number	Description	Price
NIF-EZ-D-STAR	E-Z Guide to D-STAR Operation	$15.95
NIF-EZ-ECHOLINK	E-Z Guide to EchoLink Operation	$15.95
NIF-EZ-PSK31	E-Z Guide to PSK31 Operation	$14.95
NIF-MM-BANDPLAN	HF/VHF/UHF Bands Operating Guide	$10.85
NIF-MM-DXFIELD	DX Field Reference	$15.85
NIF-MM-RADIOMG	Radio Monitoring Guide	$15.85

DXPEDITION BY K4UEE VIDEOS

K4UEE DXpedition Videos

See the adventure, camaraderie, and excitement that develop during a DXpedition. From renowned DX traveler Bob Allphin K4UEE, the DVDs reveal Ham Radio stories that illustrate the funny, interesting and sometimes-scary situations the teams encounter during a DXpedition. Entertaining and informative, they're perfect if you (or your club) want to plan your own DXpedition—or if you want to see what it's like on the other side of the pile-up!

K4UEE just added a brand new video documenting the K1N Navassa Island DXpedition, an adventure over ten years in the making. Witness the logistical challenges the team overcame to launch such an intrepid DXpedition.

UEE-K1N	2015 K1N Navassa Island DVD	$25.00
UEE-FT5ZM	2014 FT5ZM Amsterdam Island DVD	$25.00
UEE-HK0NA	2012 HK0NA Malpelo Island DVD	$25.00
UEE-K5D	2009 K5D Desecheo Island DVD	$25.00
UEE-3X5A	2007 3X5A Guinea, West Africa DVD	$22.00
UEE-3Y0X	2006 3Y0X Peter I Island DVD	$25.99
UEE-K5K	2002 K5K Kingman Reef DVD	$22.99
UEE-VP8THU-GEO	2002 VP8THU/VP8GEO South Sandwich/South Georgia Islands DVD	$22.00
UEE-XT2DX	2002 XT2DX Burinka Faso DVD	$22.99
UEE-DXCC	Nine DXpeditions to DXCC Ten Most-Wanted DVD	$25.00

Champion Radio Books

Champion Radio is regarded as an authority on the subject of antennas and towers, and has published three in-depth books on those subjects.

HF Tribander Performance Test Methods and Results

Ward Silver N0AX and Steve Morris K7LXC rigorously test ten popular tri-band Yagi antennas (including the DX Engineering Skyhawk™). This updated edition outlines the test protocol, conditions and results.

HF Vertical Performance Test Methods and Results

Ward Silver N0AX and Steve Morris K7LXC complement their acclaimed HF Tribander book, auditioning several verticals from Butternut® Antennas, MFJ, Diamond and more. The test results are well chronicled.

Up the Tower, The Complete Guide to Tower Construction

Steve Morris K7LXC has built a lot of towers, and he's put everything he's learned along the way into this book. It covers building codes, proper guying, safety, respecting your neighbors and more.

CRP-TRIBANDBOOK	HF Tribander Performance, 2nd Edition	$20.99
CRP-VERTBOOK	HF Vertical Performance	$20.99
CRP-TOWERBOOK	Up the Tower	$35.99

Contest University Textbooks

Couldn't make it to Dayton? These paperbacks are the same ones distributed at the annual Contest University seminars. Whether you're a seasoned contester or just becoming interested in this exciting facet of Ham radio, these textbooks are valuable additions to your library. Topics include everything from helpful tips and pointers to advanced operating methods and RF theory. We've also bundled all of these textbooks together in a money-saving combo.

CUB-CTU-LIBRARY	Contest University Collection of 7 Textbooks	$145.99
CUB-CTU-2012	2012 CTU Textbook	$19.99
CUB-CTU-2013	2013 CTU Textbook	$19.99
CUB-CTU-2014	2014 CTU Textbook	$19.99
CUB-CTU-2015	2015 CTU Textbook	$19.99
CUB-CTU-2016	2016 CTU Textbook	$19.99
CUB-CTU-2017	2017 CTU Textbook	$19.99
CUB-CTU-2018	2018 CTU Textbook	$19.99
CUB-CTU-CENTENNI	2014 ARRL Centennial CTU Textbook	$15.99

Technician and General Class License Course Books

HAM RADIO SCHOOL.COM

Two of the best study guides available, these books contain everything you'll need to know to pass the licensing exam. The illustrated paperbacks offer the perfect mix of technical information and practical real-world examples.

Author Stu Turner W0STU holds an Extra Class license and also served as a U.S. Air Force Academy Engineering Professor. So he knows how to arm you with the confidence to pass the test. After you're licensed, these books are great additions to your technical library.

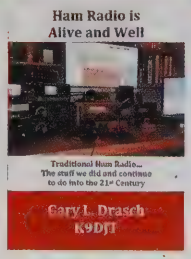
HDS-GENBOOK2019	General License Course, 277 Pages	$19.95
HDS-TECHBOOK2022	Technician License Course, 214 Pages	$22.95

Contact Sport, a Story of Champions, Airwaves and a One-Day Race Around the World

Let this book take you inside the tents, so you may learn for yourself the appeal of Radiosport. Author J. K. George N3BB guides you through the world of Amateur Radio competition and the intriguing characters of a recent World Radiosport Team Championship. If you're interested in this exciting facet of Ham Radio, this book will show you what it's all about.

ARR-4199	Contact Sport Book	$22.95

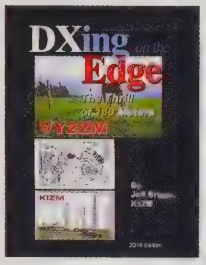
Ham Radio is Alive and Well



"Ham Radio is Alive and Well" is packed with information for both amateur and seasoned operators. Author Gary L. Drasch, K9DJT, covers the full spectrum of the hobby, including traditional tools of the trade, what's happening today, and lesser-known aspects of Amateur Radio explained in a conversational manner that anyone can understand. It's a must-read for those who want to enrich their knowledge and enjoyment of this magnificent hobby. As Tim Duffy, K3LR, COO of DX Engineering, wrote in his forward of the book, "Whether you are a longtime Ham Radio enthusiast or just getting started, you will find this book hard to put down."

DJT-AW-BOOK Ham Radio is Alive and Well, 174 Pages, Paperback **$19.99**

DXing on the Edge, 2nd Edition



Love 160 Meters? Author Jeff Briggs, K1ZM has compiled a new edition of his acclaimed book. It's filled with everything a diehard Topbander should know, including historical information, operating tricks and station tips. This paperback crams a ton of Top Band tidbits into 256 pages—a great read for the 160M aficionado.

DXE-DXINGBOOK DXing on the Edge Book..... **$20.18**

W5YI Group AmateurRadio License Study Guides

Gordon West and the W5YI Group arranged these manuals to be easy to read and comprehend. The straightforward presentation helps you retain the lessons you've learned. That means you can go into your exam confident that you'll pass the test. Each book is bundled with a bonus "On the Air" audio CD that explains your new band privileges.

The FCC recently updated the Technician License Question Pool, so the W5YI Technician Instruction Book has been revised as well. Remember, when you purchase any study material from DX Engineering, you'll always receive the most up-to-date editions.

WYI-GWTM-18 W5YI Group Technician Class Study Guide, 2018-22 ..... **$24.99**

WYI-GWGM-15 W5YI Group General Class Study Guide **$24.99**

WYI-GWEM-16 W5YI Group Extra Class Study Guide **$29.99**

CQ Magazine Publications

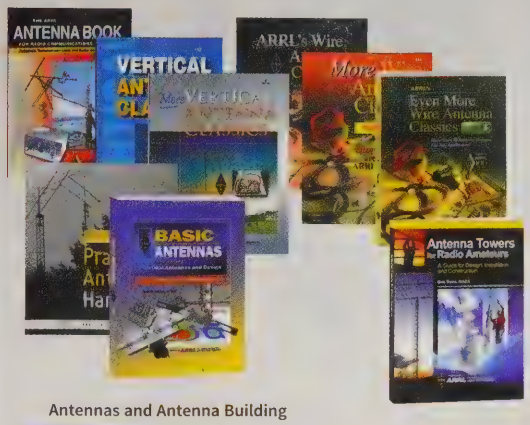
Understanding, Building, and Using Baluns and Ununs

W2FMI Jerry Sevick's compilation of balun performance and design criteria. It offers clear explanations to prompt further discussion of theory and applications.

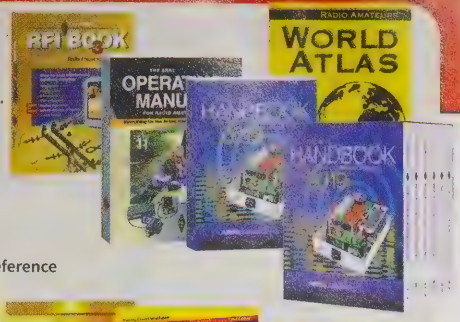
CQM-SEVICKBALUNS Understanding, Building, and Using Baluns and Ununs **$19.99**

ARRL Literature

Stay up to date with the latest technological advances in our hobby. Books from the ARRL are the go-to resource for Amateur Operators of any expertise level. Build your technical library with ARRL publications.



Antennas and Antenna Building



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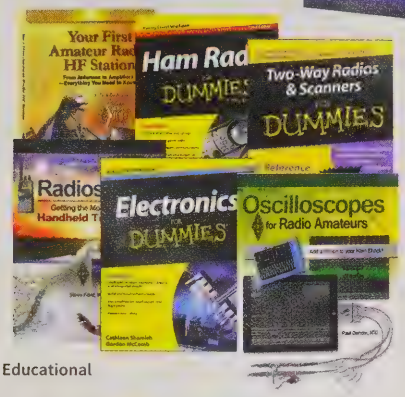
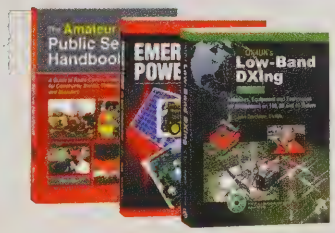


Educational

Software and Digital Modes



EMCOMM and HF

Reference

ARR-0895 ARRL Handbook, 2019 Edition, Boxed Set; **$64.95**
ARR-0888 ARRL Handbook, 2019 Edition, Softcover...**$49.95**
ARR-0598 ARRL Operating Manual, 11th Edition..... **$24.95**
ARR-0758 ARRL 2018 Repeater Directory, Spiral-Bound Desktop Edition..... **$17.95**
ARR-5226 Radio Amateur's World Atlas **$12.95**
ARR-0915 RFI Book, 3rd Edition **$29.95**
ARR-0741 Best of The Doctor is In, Paperback **$19.95**

Antennas and Antenna Building

ARR-0499 Antenna Physics..... **$29.95**
ARR-0444 Antenna Book, 23rd Edition, Softcover..... **$49.95**
ARR-5218 Vertical Antenna Classics **$12.00**
ARR-7075 Wire Antenna Classics..... **$13.95**
ARR-7709 More Wire Antenna Classics, Vol. 2..... **$17.95**
ARR-0239 Even More Wire Antenna Classics, Vol. 3..... **$19.95**
ARR-0371 Practical Antenna Handbook **$51.95**
ARR-9994 Basic Antennas, Understanding Practical Antennas and Designs..... **$29.95**
ARR-1017 Experimental Methods in RF Design..... **$49.95**
ARR-0946 Antenna Towers for Radio Amateurs..... **$34.95**
ARR-0219 Stealth Antennas, 2nd Edition..... **$24.95**
ARR-9156 International Antenna Collection, Vol. 1 .... **$19.95**
ARR-9465 International Antenna Collection, Vol. 2 .... **$21.95**

Educational

ARR-0079 Your First Amateur Radio HF Station **$19.95**
ARR-0502 Ham Radio for Dummies, 2nd Edition..... **$24.95**
ARR-9696 Two-Way Radios & Scanners for Dummies **$21.95**
ARR-3077 Radios to Go! Getting the Most from Your Handheld Transceiver..... **$15.95**
ARR-0659 Grounding and Bonding for the Radio Amateur..... **$22.95**
ARR-8314 Your Introduction to Morse Code **$15.95**
ARR-0163 Morse Code for Radio Amateurs, 12th Ed; .**$15.95**
ARR-0976 Oscilloscopes for Radio Amateurs **$22.95**
ARR-0196 Electronics for Dummies, 2nd Edition ... **$24.95**
ARR-0529 High Speed Multimedia, Amateur Radio; **$24.95**
ARR-0277 Propagation and Radio Science..... **$27.95**

Software and Digital Modes

ARR-0437 Work the World with JT65 and JT9..... **$15.95**
ARR-6320 The ABCs of Software Defined Radio **$19.95**
ARR-1431 VoIP, Internet Linking for Radio Amateurs **$21.95**
ARR-0161 Arduino for Ham Radio..... **$29.95**
ARR-7000 Arduino for Dummies **$24.95**
ARR-8102 Arduino Projects for Dummies **$29.95**
ARR-0703 More Arduino Projects for Ham Radio.... **$34.95**
ARR-2945 Raspberry Pi for Dummies..... **$24.95**

EMCOMM and HF

ARR-0802 Portable Operating for Amateur Radio, 176 pages **$19.95**
ARR-0833 Get on the Air with HF Digital, 2nd Edition..... **$22.95**
ARR-4845 The Amateur Radio Public Service Handbook **$24.95**
ARR-6153 Emergency Power for Radio Communications **$24.95**
ARR-8560 ON4UN's Low Band DXing, 5th Edition... **$44.95**
ARR-8826 RSGB's HF SSB DX Basics **$15.95**

Log Books

Ditch the box-store notepads and log your contacts quickly and accurately. These books have columns for everything you need to record, like date, frequency and mode. The "All-Weather" books are great for EMCOMM and rain-soaked Field Days.

ARR-1250 Station Log Book..... **$7.95**
ARR-7539 MINILOG Book **$4.95**
ARR-1374 All-Weather MINILOG **$8.95**
ARR-5580 All-Weather ARES Notebook..... **$6.95**
ARR-6108 All-Weather Pen..... **$13.95**

Check out our YouTube channel for in-depth tech tips and product demos!

ARES® Apparel

Whether it's just a drill or an actual EMCOMM deployment, outfit your team with official ARRL ARES gear. With a bright safety-yellow fabric and large print, you'll remain visible to other emergency workers and to the community. The proper gear is an absolutely critical component of an EMCOMM station and go kit, so make sure you're ready with official ARRL apparel.

ARR-0099 ARES Deployment Hat $14.95

ARES Deployment Vest

ARR-0128-M Medium $15.95
ARR-0128-L Large $15.95
ARR-0128-XLARGE X-Large $15.95
ARR-0128-2XLARGE 2X-Large $15.95
ARR-0128-3XLARGE 3X-Large $15.95

Pocketed Deployment Vest

ARR-0136-M Medium $24.95
ARR-0136-L Large $24.95
ARR-0136-XLARGE X-Large $24.95
ARR-0136-2XLARGE 2X-Large $24.95
ARR-0136-3XLARGE 3X-Large $24.95

DX ENGINEERING

24 Hour Wall Clock

Since you're probably logging on 24 hour time (UTC), why not have a clock that gives it to you. As an added bonus, the 12" clock proudly sports the DX Engineering logo. It runs on a single AA battery (not included).

DXE-WALLCLOCK 24 Hour Wall Clock $29.99

La Crosse Technology

La Crosse Technology was founded in 1985 and has delivered accurate time and weather information ever since! La Crosse Technology clocks combine advanced timekeeping with reliable weather data collection in one affordable package. Or you can step up to the comprehensive weather data collection of La Crosse Technology professional weather station displays. Whether you have a casual interest in the weather or require professional-level weather information, La Crosse Technology and DX Engineering have you covered. Shop Online: La Crosse Technology wireless temperature stations, wall clocks, thermometers, hand-held weather instruments, and professional weather stations today!

Handheld Weather Radio

New!

The 810-805 Handheld Weather Radio from La Crosse Technology receives all seven NOAA weather band channels. It also covers the AM/FM broadcast bands, so you can tune in to local news alerts. With an included LED flashlight, red weather alert indicator and easy-to-read backlit LCD display, the lightweight portable radio makes an essential addition to your emergency kit, car, boat or camping gear. Uses three AA batteries.

LST-810-805 AM/FM Handheld Weather Radio $34.99

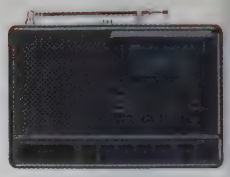
DX ENGINEERING

Top-Quality User Manuals

All DX Engineering branded products come with detailed, full-color user manuals that go above and beyond the competition. Crafted by a staff technical writer with years of Ham Radio experience, the manuals provide clearly written instructions and advice on maximizing performance. They're also available via free download from our website for anyone who wishes to research product specifications before making a purchase.

SANGEAN

CL-100 Weather Alert Radio



Keep an ear on the NOAA weather bands with this high-quality desktop radio. It features an Emergency Alert to automatically turn on and warn you of impending weather advisories. The radio is programmable for one-button tuning and has an AM/FM tuner as well. The large LCD screen displays weather alerts and RBDS information.

It's a great bedside radio too, with an alarm clock, snooze button and dimmable display. An AUX jack lets you plug in an external audio device.

SGN-CL-100 Weather Alert Radio $69.99

SANGEAN

ATS-909X World-Band Portable Radio

As Sangean's flagship line of portable radios, the ATS-909X series has all the elements found in its other models, with extra-cool features like a 42-zone world clock, over 400 memory presets, and an RF-gain control. The stereo radio expanded coverage includes broadcast, longwave, mediumwave, and shortwave bands. For RDS/RBDS broadcasts, the screen displays song and artist information. The separate AUX port allows you to hook up an external MP3 or CD player.

SGN-ATS-909XBK World-Band Portable Radio, Black Finish; $269.99

SANGEAN

WFR-1 Wi-Fi Table-Top Radio

Conservative estimates pin the current number of Internet radio stations around 15,000. That's a lot of news, comedy and jams. Using your home/office Internet and the WFR-1, you can build your own digital music library by connecting via Wi-Fi or Ethernet. You can also plug in a device via the AUX port or play tunes from a USB flash drive. A handy Line Out jack lets you feed audio to another receiver. An AC adapter is included.

SGN-WFR-28 Wi-Fi Table-Top Radio $149.99

SANGEAN

DT-200X Pocket Radio

You don't accept compromises in your Ham gear, and you shouldn't accept them in your broadcast radios either. Sangean's Pocket Radio gives you FM/AM broadcast bands with 19 presets and a built-in speaker and clock. The auto turn-off feature will conserve its two AA batteries (not included) and the removable belt clip means this radio doesn't necessarily have to live in your pocket.

SGN-DT-200X Pocket Radio $49.99

SANGEAN

MMR-77 Emergency Radio

Powered by a hand crank dynamo, this is the ideal radio to keep in your go kit. It's also water resistant, which makes it great for camping. The MMR-77 has a pair of NiMH AAA batteries built in to hold the charge. The radio also runs on AC and battery power. The tuner delivers excellent AM/FM fidelity through the built-in speaker.

SGN-MMR-77 Emergency Radio $44.99

artSci

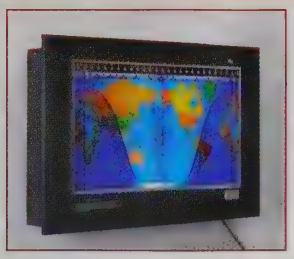
Where ART and Science work for you

Q-View QSL Card Holders

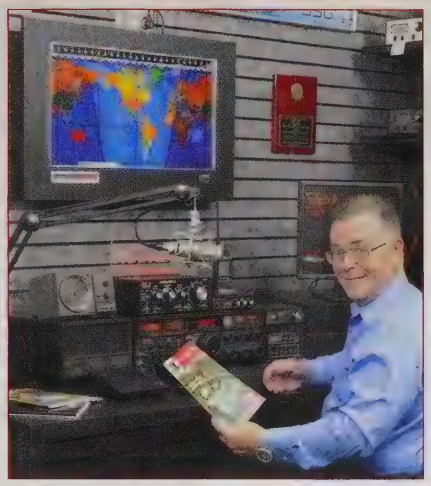
Knee-deep in QSL cards?
Art Sci has the perfect solution to protect, organize and display those hard-earned contacts. You can hang them on your wall or fold the holders neatly for storage.

Each package includes a pair of holders that can fit 20 cards apiece, for a total of 40 cards—rescued off of your bench, nightstand, desk and kitchen table. Select from a standard U.S. postcard size (3.5" x 3.5") or the larger international card size (4" x 6").

SIA-QSL-VIEW Q-View QSL Card Holder, U.S. $14.95
SIA-QSL-VIEWINTL Q-View QSL Card Holder, International $14.95



GEO-KG-ANBLK-HAM



GEOCHRON®

World Ham Radio Clocks—a DX Engineering Exclusive!

The Geochron® is unique among timepieces in that it displays geography, plus local time (12 and 24 hour formats), Universal Coordinated Time (UTC), sunrise/sunset, all legal time zones, sun movement, daylight duration, and latitude/longitude. The World Ham Radio Clocks are designed with help from the DX Engineering team and they incorporate all of the original Geochron features, plus CQ zones and country prefixes.

Select from the Standard version with a black vinyl finish, or the Special Edition with a black anodized aluminum finish. Each World Ham Radio Clock measures 2 x 3 feet and is powered by standard household 120 Vac/60 Hz AC power (other line voltages available by special order).

GEO-STD-BLK-HAM Standard World Ham Radio Clock.....$1,999.00
GEO-KG-ANBLK-HAM Special Edition World Ham Radio Clock.....$2,495.00

GEOCHRON®

Geopolitical and Topographical World Clocks

Perfect for non-Hams, Geochron's Geopolitical and Topographical World Clocks offer the same beauty and accuracy of the Ham Maps, just with a different mapset.

To keep up with the rapidly changing country boundaries, the Geopolitical Maps feature current country borders and demarcation lines.

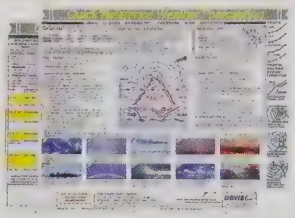
The Topographical Map shows an Earth view composed from satellite imagery. With the exception of a few of the World's largest cities, the map depicts the Earth (and its oceans) as it appeared a few thousand years ago, before human influence.

The World Clocks are available as Kilburg and Boardroom models. Though both identical in map size and function, the original Kilburg Model has a traditional border, and the Boardroom model has a larger, more finished edge akin to a fine piece of art. Learn more at DXEngineering.com.

Part Number	Map Type	Model	Border	Trim	Price
GEO-G-BRD-CHERRY	Geopolitical	Boardroom	Cherry	Silver	$2,995.00
GEO-G-BRD-MAH	Geopolitical	Boardroom	Mahogany	Gold	$2,995.00
GEO-G-BRD-HICK	Geopolitical	Boardroom	Hickory	Silver	$2,995.00
GEO-G-BRD-OAK	Geopolitical	Boardroom	Black Oak	Silver	$2,995.00
GEO-G-BRD-ALDER	Geopolitical	Boardroom	Alder	Silver	$2,995.00
GEO-T-BRD-HICK	Topographical	Boardroom	Hickory	Silver	$2,995.00
GEO-T-BRD-ALDER	Topographical	Boardroom	Alder	Silver	$2,995.00
GEO-T-BRD-OAK	Topographical	Boardroom	Black Oak	Silver	$2,995.00
GEO-T-BRD-CHERRY	Topographical	Boardroom	Cherry	Silver	$2,995.00
GEO-T-BRD-MAH	Topographical	Boardroom	Mahogany	Gold	$2,995.00
GEO-KG-GEO-BLK	Geopolitical	Kilburg	Black Vinyl Goatskin	Silver	$1,995.00
GEO-KG-G-ANBLACK	Geopolitical	Kilburg	Black Anodized	Silver	$2,495.00
GEO-KG-STAINBR-G	Geopolitical	Kilburg	Brushed Stainless	Silver	$2,795.00
GEO-KG-TOPO-BLK	Topographical	Kilburg	Black Vinyl Goatskin	Silver	$1,995.00
GEO-KG-T-ANBLACK	Topographical	Kilburg	Black Anodized	Silver	$2,495.00
GEO-KG-STAINBR-T	Topographical	Kilburg	Brushed Stainless	Silver	$2,795.00

DAVIS Instruments

Weather Forecasting Quick Reference Cards

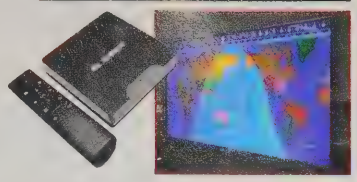


This card shows you how to use the information from your fancy weather station. It tells you how to interpret barometric pressure, wind direction, cloud types and more. Get years of meteorology lessons on a single card—perfect for weather-watchers, boaters and Hams.

DVI-131 Weather Forecasting Quick Reference Cards, Set of Two.....$11.95

Digital 4K UHD World Clock

GEOCHRON®



Now you can enjoy all the functionality, Ham-friendly features and beauty of Geochron's World Clock for a fraction of the cost! DX Engineering is the only Amateur Radio retailer worldwide that sells the Digital 4K UHD. The device gives viewers magnificent displays of the Earth with the sunrise-sunset rendered in real time through a small computer that plugs directly into a 4K TV (not provided) via HDMI. Unlike its mechanical cousin, the size of the display is only limited by the size of your TV. Use the Geochron Digital 4K's on-screen menu to access these mapsets: Earth Human, Earth Oceanic, Earth Togographical, a simple low resolution Geopolitical, and Ham Radio. The Ham Radio mapset comes packed with features made for Amateur Radio operators, including display of the "Grey Line" (the band around the Earth separating daylight from darkness) in real time—a huge benefit for optimizing long-distance communications. The Ham mapset also includes:

New!

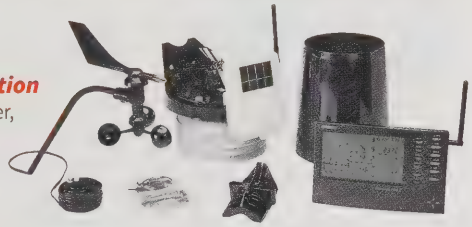
- DX and International Prefixes
- Country Names and Borders
- Equatorial, Latitude & Longitude, and Tropic Points of Reference
- Major Topographical Features
- The Grey Line against a Mercator Projection
- The Month, Day, and Hour of Every Time Zone on Earth, Including Zulu Time
- The Analemma, Showing the Sun's Position at Relative Noon

In digital format, users can customize markers on the map; receive real-time updates via the internet; watch the sun rise over special locations and mark them with customizable location pins; and take advantage of easy setup and operation with the provided remote control. With an internet connection, the Digital 4K includes time and date configuration, firmware updates and map updates. Three AAA batteries, power supply and six foot HDMI cable are included. Visit DXEngineering.com for more details.

GEO-4K-COMP Digital World Clock for 4K TV.....$399.00

DAVIS Instruments

Vantage Pro2 Weather Station



Tailored to the serious sky-watcher, this station uses a wireless, solar-powered sensor array to provide precise weather data. The easy-to-use LCD controller shows graph readouts and forecasting icons. As with many of Davis Instruments' Weather Stations, the Vantage Pro2 is fully expandable with a variety of sensors, wireless repeaters and probes. Find them at DXEngineering.com.

The station gives you precise readouts on wind speed/direction, barometric pressure, temperature, wind chill, relative humidity, rainfall, dew point and more.

DVI-6152 Vantage Pro2 Weather Station..... $585.00

Vantage Vue Weather Station

DAVIS Instruments

Get critical weather details on a sleek LCD console. The Vantage Vue Weather Station displays barometric pressure, wind speed/direction, temperature, wind chill, rainfall, dew point and more. It uses a Weather Center function that records conditions over the past 25 days.

This solar-powered wireless sensor uses frequency-hopping spread spectrum radio technology to transmit at distances up to 1,000 feet with updates every 2.5 seconds. The station is compatible with Vantage Pro2 weather stations, so you can mix-and-match components.

DVI-6250 Vantage Vue Weather Station..... $382.50

DAVIS Instruments

Mounting Tripod and Pole Kit

Properly mount your Vantage Pro2, Pro2 Plus, Vantage Vue or other precision weather sensor equipment. The Mounting Tripod features tilting feet for use on uneven terrain (or a sloped roof). Combine the two included poles for an overall height of around 70 inches. The Pole Kit includes two mounting poles that, when combined, provide about 37 inches of overall height. The kit comes with hardware.

For more accessories and replacement components, please visit DXEngineering.com.

DVI-7716 Mounting Tripod..... $76.50
DVI-7717 Mounting Pole Kit..... $31.50

Check out our YouTube channel for in-depth tech tips and product demos!

N3ZN KEYS, LLC

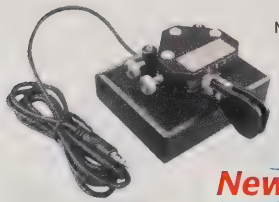
IAMBIC & SINGLE LEVER PADDLES AND KEYS

NZN-ZN-9A-1-2USA

NZN-ZN-9Z-5-8-BK

NZN-ZN-QRP-1-2IM

NZN-ZN-HK-BKBK



New!

NZN-ZN-SL-BKCFBK

New!

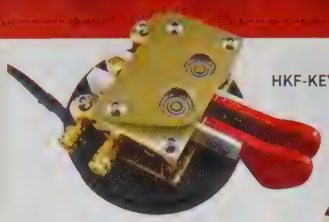
NZN-ZN-HKII

Paddles and Keys

N3ZN Paddles and Keys are a beautiful addition to your CW arsenal. Each one is precision manufactured to the strictest tolerances, using high-quality materials like solid silver, Lexan® Polycarbonate and stainless steel. Their action is smooth and reliable; electrical response crisp and clear. Heavy brass bases with non-skid feet keep them firmly planted on your desk.

Use keyword N3ZN at DXEngineering.com to see exact specs on each one. **From $314.95-$364.95**

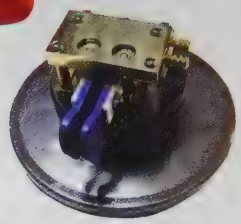
Part Number	Type	Paddle Spacing	Base Finish
NZN-ZN-9A-1-2USA	ZN-9 Iambic Key	0.500"	Red/White/ Blue
NZN-ZN-9-1-2-BK	ZN-9 Iambic Key	0.500"	Black
NZN-ZN-9-3-4-BK	ZN-9 Iambic Key	0.750"	Black
NZN-ZN-9Z-5-8-BK	ZN-9Z Iambic Key	0.625"	Black
NZN-ZN-9Z-5-8-IM	ZN-9Z Iambic Key	0.625"	IRONMAN V
NZN-ZN-QRP-1-2BK	ZN-QRP Iambic Key	0.500"	Black
NZN-ZN-QRP-1-2IM	ZN-QRP Iambic Key	0.500"	IRONMAN V
NZN-ZN-SL-BKCFIM	ZN-SL Single Paddle Key		IRONMAN V
NZN-ZN-HK-BKBK	ZN-HK Straight Key		Black
NZN-ZN-HKII	ZN-HK Straight Key		Blue
NZN-ZN-SL-BKCFBK	Single Paddle Key		Black



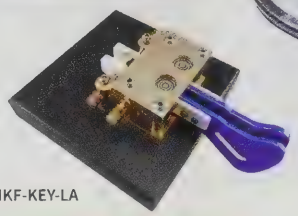
HKF-KEY-SR

HA8KF

MAGNETIC PADDLE



HKF-KEY-BR



HKF-KEY-LA

HA8KF Magnetic Paddles

Equip your shack with a European-made HA8KF iambic dual-lever magnetic tension paddle and feel the comfort and ease a finely crafted instrument can make for your CW sessions. Offered exclusively in North America by DX Engineering, these handmade paddles come with an extra-heavy steel base and loosely threaded thrumbscrews that allow for easy tension adjustments on the fly. They feature a solid brass polished hub and either red or blue finger pieces. Each plug-and-play model comes pre-wired with a 1/4" phone plug (6.35mm male TRS). Large square, large round or small round styles are available.

Red Paddle

HKF-KEY-A	Large Square Base	**$249.99**
HKF-KEY-BR	Large Round Base	**$249.99**
HKF-KEY-SR	Small Round Base	**$249.99**

Blue Paddle

HKF-KEY-LA	Large Square Base	**$249.99**
HKF-KEY-LR	Large Round Base	**$249.99**
HKF-KEY-SL	Small Round Base	**$249.99**

UM Unified Microsystems

UMS-XT-4

UMS-KC-4

XT-4 Memory Keyer

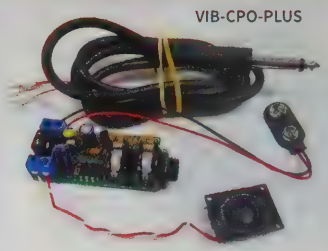
The perfect keyer for Field Day, vacations, EMCOMM or portable operation. Both small and light, this iambic-style keyer is powered by a single 9-volt battery. The XT-4 has four memory channels that can hold 110 Morse characters apiece. Programming is easy and straightforward and it includes a handy reverse function that eliminates the re-wiring hassle. It has an adjustable keyer speed and there is an auto power-off that conserves battery life.

UMS-XT-4	Memory Keyer	**$69.99**
UMS-KC-4	CW Cable Set for XT-4 and VK-64 Keyers	**$9.99**

A Clean Key is a Happy Key.

Your key or paddle relies on spotless electrical contacts to create a crisp, clear tone. More importantly, dust, grit and the occasional cookie crumb can interfere with the key's precise mechanical movement to make it frustrating to operate CW. Keep your gear in tip-top shape with high quality cleaning solutions from CAIG and Techspray. (That way, you won't have to adjust your cookie intake!)

TSY-1671-10S	Electronic Dust Spray	**$15.99**
CAG-D100L-P6C	Precision Oiler	**$19.99**
CAG-D5S-6	DeoxIT® D5 Spray	**$19.99**
CAG-DCC-V510	Contact Cleaner Wash	**$9.99**



VIB-CPO-PLUS

VIBROPLEX

Code Practice Oscillator Kits

Comprised of a small PCB and speaker, these kits let you practice code using your own key or paddle for a real tactile CW experience. The units generate a pleasant 700 Hz tone and are powered by a single 9V battery. They're the perfect choice for clubs that hold regular CW classes.

VIB-CPO	Practice Oscillator Kit	**$24.95**
VIB-CPO-PLUS	Practice Oscillator Kit, with Key Hookup Cable	**$29.95**

Palstar

CW50A Electronic Keyer

The Palstar CW50A Electronic Keyer has a speed control adjustable from 10 to 40 WPM, crystal-controlled for high accuracy. You can easily flip from mode A to mode B iambic keying and the built-in sidetone generator and speaker make monitoring your transmission easy. The CW50A also doubles as a training unit. Character spacing and dash weight are adjustable, as well.

The Palstar CW50A Electronic Keyer works with any straight key, semi-automatic bug key, single lever paddles and iambic dual lever "squeeze" paddles. Plus, it's compatible with both tube and solid state rigs. You can hook up your paddle through a convenient front panel jack, and there's a separate jack for your straight key—allowing for two keys to be attached at the same time. Read more details at DXEngineering.com.

- Sidetone pitch: 500-1000 Hz, front panel adjustable
- Keying output: positive, negative and high-speed reed relay
- Operating current: 10-50 mA, depending on sidetone level

PAS-CW50A	Palstar Electronic Keyer	**$179.99**

MFJ

MFJ-495 Millennium CW Memory Keyer

With the MFJ-495, you get a feature-laden keyer with dual microprocessors and nonvolatile EEPROM chip for excellent reliability. You can key in CW with your paddle, keyboard or through a computer serial port. MFJ-495's battery backed-up memory allows you to store messages and settings. This user-friendly keyer also features an internal speaker and simple interface, which makes it easy to set up and start sending CW.

MFJ-495	Millennium CW Memory Keyer	**$175.95**

MFJ-407E Curtis Deluxe Electronic Keyer

Using cutting-edge microprocessor control, the MFJ-407E gives you iambic key operation and dot-and-dash memory to help you send perfect code. You can adjust code speed, weight and side tone frequency, plus this keyer is compatible with your key, and single or dual paddle.

MFJ-407E	Curtis Deluxe Electronic Keyer	**$99.95**

Call us for easy special orders!

KENT KMK
KENT MORSE KEYS GERMANY

KMK-KT-1

Straight Keys

Engineered to the strictest standards, these Kent Keys are precision-machined from solid brass. They feature silver plated contacts and ball race bearings for tight and smooth operation. You can easily fine-tune these keys by using the knurled-head adjustment screws.

You can select from the SK-1 Key, with a beautifully finished wood base, or the KT-1 Key, with a steel base and a sleek black finish.

KMK-KT-1	KT-1 Hand Key, Black Steel Base	$174.99
KMK-SK-1	Straight Hand Key, Wood Base	$154.99

Single and Double Paddle Keys

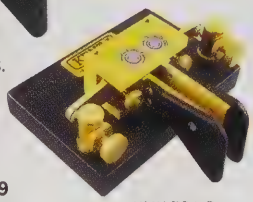
KMK-SP-1

KENT KMK
KENT MORSE KEYS GERMANY

Made with versatility in mind, these keys can be adjusted to your precise operating style. Thanks to the paddles' unique spring design, you can change left and right spring tension separately. Adjustment is easy, with large knurled screws.

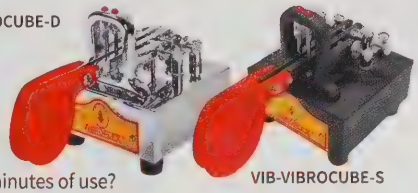
Like all Kent Keys, the mechanisms are machined from solid brass and use a quality ball race bearing. A heavy steel base keeps the paddles stable and the intuitive gap settings ensure a positive "feel."

KMK-SP-1	Single Paddle Key	$159.99
KMK-TP1-B	Twin Paddle Key	$164.99


KMK-TP1-B

VIBROPLEX

VIB-VIBROCUBE-D

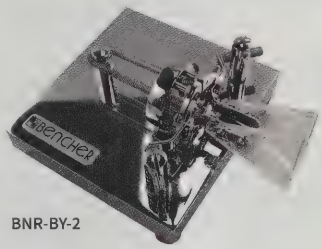

VIB-VIBROCUBE-S

Vibrocube

How many times have you had to reposition your paddles after a few minutes of use? Smaller, lightweight paddles can slide around your table, causing frustration and aggravating delays. Vibroplex tackles this problem head-on with the Vibrocube. These heavy-duty paddles tip the scales at over six pounds. They're made of steel, zinc and brass for a durable and stable iambic paddle—ideal for the enthusiastic CW user.

VIB-VIBROCUBE-D	Vibrocube Deluxe	$299.95
VIB-VIBROCUBE-SU	Vibrocube Standard Upgraded	$229.95
VIB-VIBROCUBE-S	Vibrocube Standard	$199.95

BENCHER, INC.


BNR-BY-2

BNR-ST-1

Keys and Accessories

Equip your station with high-performance Bencher keys and accessories. All Bencher products are fabricated and assembled in the USA by skilled professionals, using the finest materials for superior performance and durability.

Keys

BNR-RJ-1	Hand Key, Black Base	$159.99
BNR-RJ-2	Hand Key, Chrome Base	$189.99
BNR-BY-1	Iambic Paddle, Black Base/Chrome Parts	$171.99
BNR-BY-2	Iambic Paddle, Chrome Base/Chrome Parts	$211.99
BNR-ST-1	Single Lever Paddle, Black Base/Chrome Parts	$146.99
BNR-ST-2	Single Lever Paddle, Chrome Base/Chrome Parts	$176.99

Accessories

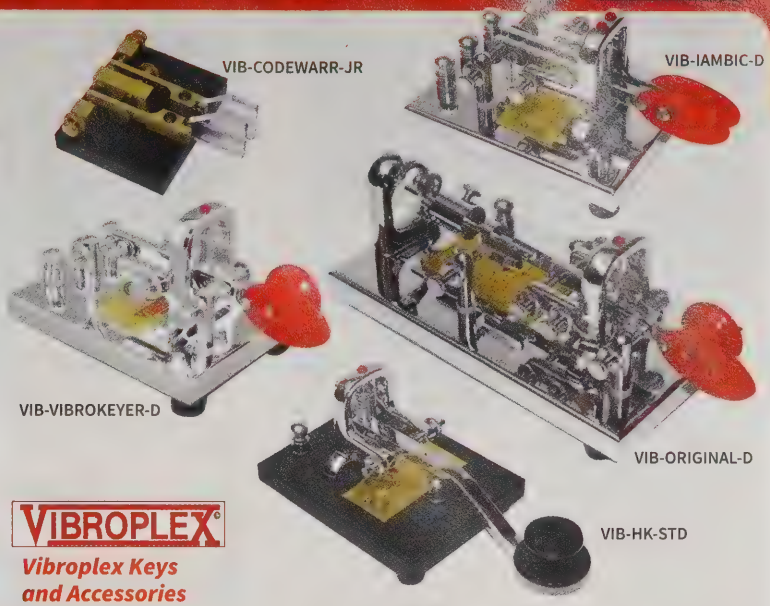
BNR-EZ-1	4" Hook-up Cable, 1/8" and 1/4" Plugs	$12.99
BNR-DC-RJ	Cover for RJ-Series Keys	$34.99
VIB-DC-BY	Cover for BY-Series Paddles	$35.95

Keyer Cables

Use these to connect your MFJ Keyer to your radio. The cables have an RCA phono plug on one end and a 3.5mm (with included 1/4" adapter) plug on the other.

MFJ-5164	Keyer Cable, 6'	$11.95
MFJ-5166	Keyer Cable, 3'	$11.95

MFJ


VIB-CODEWARR-JR
VIB-IAMBIC-D
VIB-VIBROKEYER-D
VIB-ORIGINAL-D
VIB-HK-STD

VIBROPLEX

Vibroplex Keys and Accessories

Vibroplex has been a leading manufacturer of quality CW keys and amateur radio accessories for over 100 years. From the Original Bug (in continuous production since 1905) to the always-reliable straight key, we have a wide selection of Vibroplex models to choose from. Over 300,000 Vibroplex keys are in circulation today because of their durability and unwavering performance.

Keys

VIB-BLRACER-STD	Blue Racer	$232.95
VIB-CODEWARR-JR	Black Code Warrior Jr.	$109.95
VIB-IAMBIC-S	Iambic Paddle Standard	$171.95
VIB-IAMBIC-D	Iambic Paddle Deluxe	$211.95
VIB-IAMBIC-P	Iambic Paddle Presentation	$299.95
VIB-IAMBIC-G	Iambic Paddle Gold	$322.95
VIB-VIBROKEYER-S	Vibrokeyer Single Paddle Standard	$171.95
VIB-VIBROKEYER-D	Vibrokeyer Single Paddle Deluxe	$211.95
VIB-VIBROKEYER-G	Vibrokeyer Single Paddle Gold	$322.95
VIB-ORIGINAL-S	Original Bug Standard	$211.95
VIB-ORIGINAL-D	Original Bug Deluxe	$272.95
VIB-ORIGINAL-P	Original Bug Presentation	$353.95
VIB-ORIGINAL-G	Original Bug Gold	$393.95
VIB-HK-STD	Straight Key Standard	$171.95
VIB-HK-DELUXE	Straight Key Deluxe Chrome	$211.95
VIB-HK-GOLD	Straight Key Gold	$322.95

Accessories

VIB-DC-VIBRO	Dust Cover for HK/Iambic/Vibrokeyer	$34.95
VIB-DC-ORIG	Dust Cover for Original Bug	$35.95
VIB-DC-RACER	Dust Cover for Racer	$29.95
VIB-DC-BY	Dust Cover for Bencher BY Series	$35.95
VIB-405-CCS	Contact Cleaner Abrasive Strip	$5.95
VIB-CP-2	2-Conductor Cable 1/4" Plug (Bug or Hand Key)	$9.95
VIB-CP-3	3-Conductor Cable 1/4" Plug (Paddles)	$9.95
VIB-CP-3-3-5MM	3-Conductor Cable 3.5mm Plug (Paddles)	$9.95
VIB-COFFEMUG	Vibroplex Coffee Mug	$8.95

VIB-DC-VIBRO

VIB-COFFEMUG

VIB-CP-2

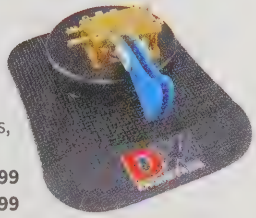
DX ENGINEERING

PaddlePads

Save your wrist during those marathon contests and work long hours of DX without strain. DX Engineering's washable PaddlePads are a CW operator's best friends. They keep your key from sliding around on your desk and allow your wrist to stay at a comfortable angle. The PaddlePads come in two sizes, find the right one for your key at DXEngineering.com.

DXE-PADDLEPAD-L	PaddlePad, Large, 5.9" x 7.5"	$11.99
DXE-PADDLEPAD-S	PaddlePad, Small, 3.8" x 8.9"	$8.99

Shown with key. Not included.



Join our crew on Facebook for news and exclusive deals!

Coaxial Dynamics
A CDI INDUSTRIES, INC COMPANY
SPECIALISTS IN RF TEST EQUIPMENT & COMPONENTS

CXD-83000-ANF

CXD-83000-AUF

RF Peak Reading Wattmeters

These meters are designed to read RF power in PEP watts, which is useful in measuring SSB, DSB and AM signals. They're similar to a standard wattmeter, yet can change from average to peak readings with a flip of a switch. These meters are built to the high standards Coaxial Dynamics is famous for, and deliver the bulletproof accuracy that wireless communications professionals demand.

The meters use the plug-in elements to define the power and frequency range you want to measure. Each meter requires a single 9-volt battery.

CXD-83000-ANF RF Peak Reading Wattmeter, N Female Connectors **$470.00**

CXD-83000-AUF RF Peak Reading Wattmeter, SO-239 Connectors **$470.00**

MFJ-267

MFJ

MFJ-264

MFJ-267

Air-Cooled Dummy Load and Wattmeter, 1,500 Watts

- SWR under 1.3:1 at 30 MHz
- Built-in wattmeter can be used independently

MFJ-267 Dummy Load/Wattmeter **$159.95**

MFJ-264

Air-Cooled Dummy Load, 1,500 Watts (SO-239)

- SWR under 1.1:1 at 30 MHz and 1.3:1 at 30-650 MHz

MFJ-264 Dummy Load, 1,500 Watts **$74.95**

MFJ-264N

Air-Cooled Dummy Load, 1,500 Watts (N Connector)

- SWR under 1.1:1 at 30 MHz and 1.3:1 at 30-650 MHz

MFJ-264N Dummy Load, 1,500 Watts **$84.95**

MFJ-260C

Air-Cooled Dummy Load, 300 Watts

- SWR under 1.1:1 to 30 MHz and 1.5:1 at 30-650 MHz

MFJ-260C Dummy Load, 300 Watts **$39.95**

Palstar

PAS-DL1500

Air-Cooled Dummy Load, 1,500 Watts

- 0-500 MHz frequency range

PAS-DL1500 Dummy Load, 1,500 Watts **$194.99**

DIAMOND ANTENNA

Diamond Compact Dummy Loads

DMN-DL30A Compact Dummy Load, 15 W Avg./100 W Peak, DC-500 MHz, PL-259 ..... **$39.99**

DMN-DL30N Compact Dummy Load, 15 W Avg./100 W Peak, DC-500 MHz, Type N Connector **$54.99**

Coaxial Dynamics
A CDI INDUSTRIES, INC COMPANY
SPECIALISTS IN RF TEST EQUIPMENT & COMPONENTS

CXD-81000-ANF

CXD-81000-AUF

RF Directional Wattmeters

Once only available to broadcast engineers, wireless network designers and communications professionals, now you can get these high-precision Coaxial Dynamics meters for your own station. Simply connect the meter between your RF power source and your antenna (or dummy load), and with a few minor adjustments you'll be able to measure forward or reflected power.

Each meter requires plug-in elements to choose or expand the power and frequency range you want to measure, available at DXEngineering.com.

The meters are shock-mounted in a virtually indestructible chassis, making them well suited to the field. For extra protection, check out the Carrying Case. It is made specifically for the 81000 series meters, with room to fit four additional connectors and 11 separate plug-in elements.

CXD-81000-ANF RF Directional Wattmeter, N Female Connectors **$319.00**

CXD-81000-AUF RF Directional Wattmeter, SO-239 Connectors **$319.00**

CXD-88800 Carrying Case **$90.00**

Coaxial Dynamics Standard Plug-In Elements

Expand the versatility of your Coaxial Dynamics or Bird Directional Wattmeter by using additional Plug-In Elements. They assure a super accurate measurement for your station power and antenna performance. Coaxial Dynamics' 7/8 inch line size standardization means these elements are completely interchangeable, whether the element is brand new, or if it were made decades ago.

Elements are available at DXEngineering.com.

VEC-DL650M

VEC-DL-2500

VECTRONICS
...World Class Quality

Dummy Loads

- Air-Cooled
- 1,500 Watts, 0-650 MHz
- SWR under 1.3:1 at DC-300 MHz, under 1.5:1 at 300-500 MHz, under 2.0:1 at 650-1000 MHz

VEC-DL650M Dummy Load, 1,500 Watts **$79.95**

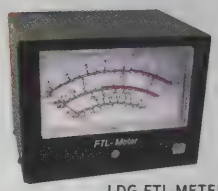
- Fan-Cooled
- 2,500 Watts, 0-150 MHz
- SWR under 1.31 to 30 MHz

VEC-DL-2500 Dummy Load, 2,500 Watts **$219.95**

LDG ELECTRONICS

LDG-FT-METER

Multi-Function Meters for Yaesu 857/897 Transceiver


LDG-FTL-METER

These 7-function meters are the perfect complement to your Yaesu radio. On the receive end, they'll display signal strength, discriminator or voltage. For transmit, the meters will display RF power, SWR, modulation, ALC or voltage.

LDG-FTL-METER Multi-Function Meter for Yaesu, 4.5" Display **$89.99**

LDG-FT-METER Multi-Function Meter for Yaesu, 2.5" Display **$59.99**

LDG ELECTRONICS

Meter for LDG Remote Antenna Tuner

To get accurate metering of your AT600ProII Tuner, LDG offers this intuitive multi-function meter. It can display forward/reflected power and SWR. The meter also has peak hold and average power modes. Plus, if your ProII Tuner is nearby, then you can set the meter to display a different reading than the tuner's built-in bar graph LED, giving you two different meter options. The M-600 has 0-100 and 0-600 watt power ranges and is designed for the AT-600ProII tuner.

LDG-M-600 Meter for AT-600ProII **$129.99**

New!

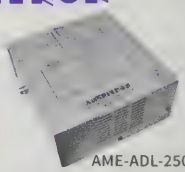
MOONRAKER

SWR-270 Dual Band SWR/Power Meter

Moonraker's new Dual Band SWR/Power Meter provides basic metering for VHF and UHF power and antenna indications at a budget-friendly price. Measuring a compact 4.331" x 2.362" x 1.575", the meter includes 120-500 MHz frequency coverage, 0-100 W power indication, and 52 ohms impedance. Add this solidly builty tool for measuring forward/reflected power and VSWR to your shack's arsenal of testing equipment.

MKR-21-920 Dual Band SWR/Power Meter **$45.99**

AMERITRON®


AME-ADL-2500

AME-ADL-1500

ADL-1500

Oil-Filled Dummy Load, 1,500 Watts

- 7 1/2" H x 6 5/8" D
- SWR under 1.2:1 to 30 MHz and low SWR to 400 MHz

AME-ADL-1500 Dummy Load, 1,500 Watts **$74.95**

ADL-2500

Fan-Cooled Dummy Load, 2,500 Watts

- SWR under 1.25:1 below 30 MHz and under 1.4:1 from 30 to 60 MHz
- 4" H x 8 1/4" D

AME-ADL-2500 Dummy Load, 2,500 Watts **$219.95**

Daiwa meters deliver high quality at a value price, making them ideal for both serious contesters and casual ragchewers alike. The cross-needle meters display SWR, power output and reflected power. Each meter uses 13.8 Vdc and has SO-239 connectors.

DAIWA

1,500 Watt Economy Series HF/VHF Bench Meter

The CN-501H covers 1.8-150 MHz with 15/150/1,500 watt min./mid./max. power ranges.

DWA-CN-501H 1,500 Watt Economy Series HF/VHF Bench Meter..... **$105.99**

200 Watt Economy Series HF/VHF Bench Meter

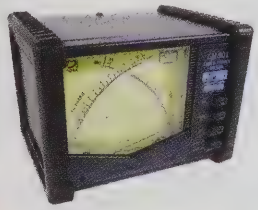
The CN-501V covers 140-525 MHz with 20/200 watt min./max. power ranges.

DWA-CN-501V 200 Watt Economy Series HF/VHF Bench Meter..... **$105.99**

3,000 Watt Professional Series Bench Meter

The CN-901HP3 covers 1.8-200 MHz with 30/300/3,000 watt min./mid./max. power ranges.

DWA-CN-901HP3 3,000 Watt Professional Series Bench Meter..... **$205.99**



2,000 Watt Professional Series Bench Meter

The CN-901HP covers 1.8-200 MHz with 20/200/2,000 watt min./mid./max. power ranges.

DWA-CN-901HP 2,000 Watt Professional Series Bench Meter..... **$165.99**

200 Watt Professional Series Bench Meters

The CN-901V covers 140-525 MHz with 20/200 watt min./max. power ranges.

DWA-CN-901V 200 Watt Professional Series Bench Meter **$155.99**

MFJ

Digital SWR/Wattmeter

This meter's intuitive bar graph display combines digital accuracy with the easy readability of an analog meter. Use this meter to display power, SWR and frequency simultaneously. There's also an adjustable alarm to alert you to dangerous SWR levels. It covers 1.8-54 MHz with 25/250/1,500 watt min./mid./max. power ranges.

MFJ-826B Digital SWR/Wattmeter..... **$179.95**

DIAMOND ANTENNA

DMN-SX20C

SX20C and SX40C 300 Watt Mobile Power Meters

These compact meters work well in mobile rigs or shacks that are short on space. Their cross-needle displays indicate SWR and power output simultaneously. They both feature 30/300 watt min./max. power ranges. The SX20C covers the 3.5-30/50-54/130-150 MHz bands, while the SX40C covers 144-470 MHz.

DMN-SX20C SX20C Mobile Power Meter, HF-VHF **$92.99**

DMN-SX40C SX40C Mobile Power Meter, 2M-70cm **$82.99**

SX100 3,000 Watt Power Meter

The SX100 measures both forward/reflected power and SWR. It covers 1.6-60 MHz with 30/300/3,000 watt min./mid./max. power ranges.

DMN-SX100 SX100 Power Meter..... **$124.99**

SX200 200 Watt Power Meter

With a 4 watt minimum of testing power, this compact meter is perfect for testing 2M HT or base stations. It covers 1.8-200 MHz with 5/20/200 watt min./mid./max. power ranges.

DMN-SX200 SX200 Power Meter..... **$89.99**

SX400 200 Watt Power Meter

Designed for VHF and UHF, this compact meter is perfect for mobile or base installations. It covers 140-525 MHz with 5/20/200 watt min./mid./max. power ranges.

DMN-SX400 SX400 Power Meter..... **$109.99**

SX600 Dual Power Meter

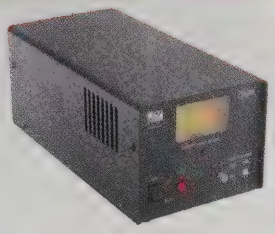
Instantly switch from metering one of two directional couplers. For low-band/VHF rigs there's a 1.8-160 MHz coupler and for VHF/UHF rigs, there's a 140-525 MHz coupler. Plus, the couplers are separate, which means you can keep both rigs plugged in all the time. The SX600 has 5/20/200 watt min./mid./max. power ranges.

DMN-SX600 SX600 Dual Power Meter..... **$179.99**

SX1100 Dual Power Meter

The ideal meter if you're operating on the 33cm and 23cm bands. Similar to the SX600, this meter has two separate couplers: one covers 1.8-160 MHz while the other UHF coupler covers 430-1300 MHz. The three UHF bands are selectable for 430-450, 800-930 and 1240-1300 MHz. The SX1100 has 5/20/200 watt min./mid./max. power ranges.

DMN-SX1100 SX1100 Dual Power Meter..... **$262.99**



PAS-DL2K

PAS-PM2000A

Palstar

Wattmeters and Dummy Load

PAS-PM2000AM

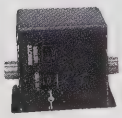
These hyper-accurate meters measure and display SWR, forward power and reflected power simultaneously. They'll also monitor average power, and their handy "Peak Hold" buttons make it easy to record peak power. The meters cover 1.8-60 MHz with 300/2,000 watt min./max. power ranges. For mobile use, the more compact PM2000AM includes a mounting bracket.

The PAS-DL2K is a fan-cooled dummy load with a built-in wattmeter. It covers 0-30 MHz.

PAS-PM2000A Wattmeter, 2,000 Watts..... **$199.99**

PAS-PM2000AM Mobile Wattmeter, 2,000 Watts..... **$199.99**

PAS-DL2K Dummy Load/ Wattmeter, 2,000 Watts..... **$399.95**



AMERITRON®

Flat Mount Mobile SWR/Wattmeter

Designed for easy installation in most vehicles, this dashboard mount meter covers 1.8-30 MHz. An LED illuminated cross-needle meter improves visibility, even at night. It is powered via 9-volt battery or any 12 Vdc power source. A remote sensor is included.

AME-AWM-35BH Flat Mount Mobile SWR/Wattmeter..... **$159.95**

ICOM

Icom PW1 HF/50 MHz All Band 1 kW Linear Amplifier

- Coverage: 160-15 meters plus 6 meters
- (User modifiable to cover 10 and 12 meters)
- Power output: 1,000 watts on all bands at 240 Vac Input: 500W at 120 Vac Input
- Automatic AC input voltage selector
  - Accepts 180-264 Vac or 90-132 Vac
- Solid State No-Tune instant bandswitching
  - Built-In Antenna Tuner
- Full 100% duty cycle output, even RTTY and SSTV
- Full break-in CW (QSK)
- Removable face plate

ICO-PW1 HF/50 MHz Solid State Linear Amplifier with Auto Tuner... **$4,869.95**

1,500 Watt Automatic HF Linear Amplifier

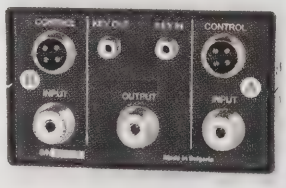
This is the first Amateur Radio HF amplifier to combine fully automatic tuning and sophisticated digital control capabilities. Using a revolutionary new amplifier design, the 2000A delivers up to 1,500 watts of clean, noise-free power. Full automatic tuning gives contesters an edge, by permitting lightning-quick bandswitching with exceptionally low SWR. Advanced digital features provide full control via PC when plugged into the 2000A's RS232 port. An optional module lets you turn the amplifier on and off remotely.

AOM-2000A	1,500 Watt Automatic HF Linear Amplifier	**$6,599.99**
AOM-2000A-240	Acom-2000A with Pre-Wired 240V AC Plug	**$6,649.99**
AOM-RPON	Remote Power On Module for 2000A	**$165.99**

Remote Control Unit

This is the exact same remote control unit that comes with ACOM's 2000 amplifier. The unit lets you install the amplifier away from your desk and free up space in your shack. You can control all of the amplifier's functions and monitor critical parameters on the large LCD display.

AOM-RCU-TFT	Remote Control Unit	**$799.99**



Automatic XCVR Commutator

The 2S1 lets two transceivers use a common load, preventing the radios from transmitting at the same time; but allowing simultaneous reception. It was designed specifically to link ACOM's 2000S/SW antenna selector with its A2000 HF linear amplifier, but it can be adapted for other applications. It's fully automatic and supports full break-in.

AOM-2S1	Automatic XCVR Commutator	**$309.99**

ATU04AT Automatic Antenna Tuner

Powered and controlled by ACOM's solid state HF+6M amplifiers, this antenna tuner delivers automatic and manual tuning to ensure the proper impedance match between radio and amplifier. Full tuning is completely automatic, and tuning patterns can be stored in its nonvolatile memory (or transferred to a PC for future use). Tuner information is displayed on the amplifier's screen for easy use. It has built-in voltage, power, and hot-switching protection, and the unit can be mounted indoors or outdoors.

AOM-04AT	ATU04AT Automatic Antenna Tuner	**$1,299.99**

1,500 Watt HF+6M Linear Amplifier

It's more than just a pretty face; the A1500 covers all the HF bands and 6 meters with incredibly low distortion and noise figures. Large, smooth knobs combine with a sleek LCD screen to make adjustments easy and quick. The A1500 boasts three antenna outputs and nearly silent input bypass and antenna relays. Diagnostic data is stored in one of seven nonvolatile memory banks.

AOM-1500	1,500 Watt HF Linear Amplifier	**$4,139.99**
AOM-1500-240	Acom-1500 with Pre-Wired 240V AC Plug	**$4,189.99**

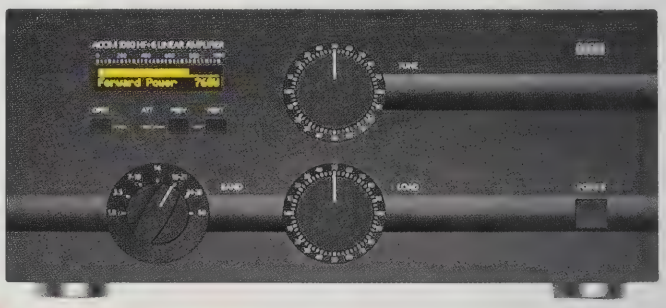
700 Watt HF Linear Amplifier

As long as the VSWR stays below 3:1, this amplifier lets you change between the 160 and 10 meter bands without using an external tuner. The A1010 can withstand up to 240 watts of reflected power, up to 100 milliseconds of drive spikes and deep voltage drops. Its durability and front-panel controls make this amplifier an excellent choice.

AOM-1010	700 Watt HF Linear Amplifier	**$2,119.99**

Order your Acom amplifiers with the custom 120V or 240V AC plug already installed.

AOM-1010-120	Acom-1010 with Pre-Wired 120V AC Plug	**$2,169.99**
AOM-1010-240	Acom-1010 with Pre-Wired 240V AC Plug	**$2,169.99**



1,000 Watt HF+6M Linear Amplifier

Easy to operate and easy to maintain, ACOM's A1000 is an extraordinary good value for HF operators. You can switch bands without a tuner, provided VSWR stays below 3.1. That gives you an edge during a contest scramble. Broadband input matching means that your radio will always see a very good load across the entire 1.8-54 MHz spectrum. Specially mounted relays deliver virtually silent QSK operation. This amplifier can also withstand significant amounts of reflected power and signal fluctuations.

AOM-1000	1,000 Watt HF Linear Amplifier	**$2,759.99**

Order your Acom amplifiers with the custom 120V or 240V AC plug already installed.

AOM-1000-120	Acom-1000 with Pre-Wired 120V AC Plug	**$2,809.99**
AOM-1000-240	Acom-1000 with Pre-Wired 240V AC Plug	**$2,809.99**

ICP-120 & ICP-240 In-Rush Current Protectors

AMERITRON®

- Designed to stop damaging in-rush current
- Protect your tubes from thermal shock
- No complicated wiring, plugs right in to AC
- Not for use with motors (engines)

AME-ICP-120	In-Rush Current Protector, 120 Vac	**$79.95**
AME-ICP-240	In-Rush Current Protector, 240 Vac	**$79.95**

AME-ICP-240

ACOM

1,000 Watt HF+6M Linear Amplifier

Answering the call from Hams who want a state-of-the-art, solid state RF amplifier with full HF and 6 meter coverage, ACOM introduces its 1200S. It's very compact and rugged, making it a smart choice for DXpeditions. The final PA stage uses a rugged LDMOS transistor, and a large color display features intuitive menus and on-board monitoring of 10 parameters. It's compatible with virtually all modern radios, requiring less than 50 watts of drive power.

AOM-1200S 1,000 Watt HF+6M Linear Amplifier..... **$3,699.99**

Order your Acom amplifiers with the custom 120V or 240V AC plug already installed.

AOM-1200S-120 Acom-1200S with Pre-Wired 120V AC Plug..... **$3,749.99**

AOM-1200S-240 Acom-1200S with Pre-Wired 240V AC Plug..... **$3,749.99**

DX ENGINEERING

DXE-2000-ICO-5

DXE-600S-YSU-5

DXE-2000-KWD-5

Transceiver to Amplifier Interface and Keying Cables

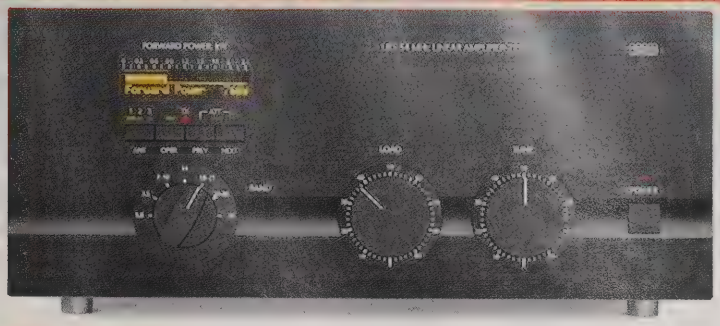
The proper amplifier-to-radio link is essential to using all of the amplifier's functions (like band switching and keying). Make sure you're getting the most out of your setup with the application-specific interface cables. The amplifier and radio manufacturer are listed in the table below, a comprehensive rundown of model compatibility is at DXEngineering.com.

Part Number	Radio	Amplifier	Cable Description	Price
DXE-2000-ICO-5	Icom	ACOM 2000A	Icom C-IV Remote Port	$35.99
DXE-2000-KWD-5	Kenwood	ACOM 2000A	RS-232 Com Port	$35.99
DXE-2000-YSU-5	Yaesu	ACOM 2000A	RS-232 CAT	$35.99
DXE-2000-K3-5	Elecraft K3	ACOM 200A	DB-9 Connector	$35.99
DXE-600S-ICO-5	Icom	ACOM 600S	Icom C-IV Remote Port	$35.99
DXE-600S-KWD-5	Kenwood	ACOM 600S	RS-232 Com Port	$35.99
DXE-600S-YSU-5	Yaesu	ACOM 600S	RS-232 CAT	$35.99
DXE-600S-K3-5	Elecraft	ACOM 600S	DB-9 Connector	$35.99
DXE-KWD-RCA	Kenwood	Universal	Keying, RCA to 7-Pin DIN	$35.99
DXE-YSU-8P-RCA	Yaesu	Universal	8-Pin Mini DIN to RCA	$35.99

ACOM

Part Number	Coverage	Watts (PEP)	Modes	QSK?	VSWR Tolerance	Tube Complement
AOM-2100	1.8-54.0 MHz	1,500	All	Yes	Up to 3.1	4CX1000A
AOM-2000A	1.8-29.7 MHz	1,500	All	Yes	Up to 3:1	4CX800A (x2)
AOM-1500	1.8-54.0 MHz	1,500	SSB, CW	Yes	Up to 3:1	4CX1000A
		1,200	RTTY, Data			
AOM-1200S*	1.8-54.0 MHz	1,000	All	Yes	Up to 3:1	Solid State
AOM-1000	1.8-54.0 MHz	1,000	All	Yes	Up to 3:1	4CX800A
AOM-1010	1.8-29.7 MHz	700	All	No	Up to 3:1	4CX800A
AOM-600S*	1.8-54.0 MHz	600	All	Yes	Up to 1.5:1 at full output*	Solid State

*AOM 600S, AOM 1200S, with SWR above 1.5:1 (through 3:1), the output power will be reduced proportionally.



ACOM

1,500 Watt HF Linear Amplifier

The 2100 is ACOM's most user-friendly amplifier to date. It uses a powerful tuning aid and an automatic input attenuator to let you quickly match input impedance to the tube load impedance. Plus, as long as your VSWR stays under 3:1, you won't need an antenna tuner. The 2100 is packed with self-protection features and will withstand up to 400 watts of reflected power. Its resiliency makes the 2100 a good choice for Field Day, EMCOMM and base stations. The intuitive controls and OLED display contribute to the 2100's straightforward operation.

AOM-2100 1,500 Watt HF Linear Amplifier..... **$4,399.99**

AOM-2100-240 Acom-2100 with Pre-Wired 240V AC Plug..... **$4,449.99**

ACOM

600 Watt HF+6M Linear Amplifier

This amplifier gives you comprehensive remote control capabilities. Operation is via a series of intuitive menus displayed on a high-resolution color display. Using the amp's CAT interface, the amplifier will automatically "follow" the transceiver while switching bands. The 600S monitors the input frequency and will automatically switch the bands to compensate for changes. It's compatible with all transceivers on the market and needs a mere 30 watts of input power to operate.

AOM-600S 600 Watt HF Linear Amplifier..... **$3,059.99**

Order your Acom amplifiers with the custom 120V or 240V AC plug already installed.

AOM-600S-120 Acom-600S with Pre-Wired 120V AC Plug..... **$3,109.99**

AOM-600S-240 Acom-600S with Pre-Wired 240V AC Plug..... **$3,109.99**

Equipment Covers

You've spent a lot of money on your Ham Radio gear, so protect it with EAntenna's high-quality Equipment Covers. These custom-fit covers are embroidered with the logo and model number of the gear they're protecting. Each polyester/cotton cover has slits in the back, so you can slip it over the radio or amp without unplugging any cables.

EAN-FACOM1000 ACOM 1000 ..... **$42.99**

EAN-FACOM1010 ACOM 1010 ..... **$42.99**

EAN-FACOM2000A ACOM 2000A **$42.99**

EAN-FACOM1500 ACOM 1500 ..... **$42.99**

EAN-FACOM600S ACOM 600S **$42.99**

EAN-FACOM1200S ACOM 1200S **$42.99**

EAN-FACOM2100 ACOM 2100 ..... **$42.99**

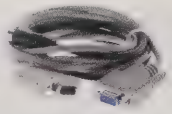
AMERITRON

ALS-1306 HF Power Amplifier

- Coverage: all HF bands (1.5-54 MHz)
- Power output: 1,200 watts PEP
- Eight RF TMOS MRF-150 FETs
- 120/240 Vac compatible
- Built-in amplifier keying with optional cable
- Instant bandswitching—no tuning needed
- Auxiliary 12 Vdc output for extra devices

AME-ALS-1306 HF Power Amplifier..... **$3,148.95**

AME-DB-DB7DK



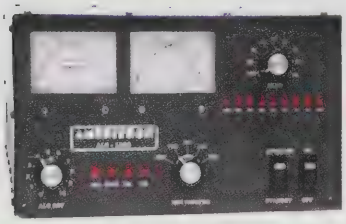
AME-DB-DB8MK

ALS-1306 Band Data Interface Cables

Take advantage of the automatic band changing capability of Ameritron's ALS-1306 HF Power Amplifier or RSC-12C Remote Antenna Switch. You'll need the right cable to properly connect your radio, see the table below for options and find specific radio applications at DXEngineering.com.

Part Number	Radio Brand	Description	Price
AME-DB-DB15HE	Elecraft	K3 ACC DB15	$24.95
AME-DB-7DI	Icom	7-Pin DIN ACC 2	$24.95
AME-DB-13D	Icom	13-Pin DIN ACC	$24.95
AME-DB-DB7DK	Kenwood	7-Pin DIN and RS232	$24.95
AME-DB-DB8MK	Kenwood	TS-480SAT/HX	$24.95
AME-DB-8DY	Yaesu	8-Pin DIN Band Data	$24.95
AME-DB-8MY2	Yaesu	8-Pin Mini-DIN	$24.95
AME-DB-10MY	Yaesu	FT-450,-950, -DX1200	$24.95
AME-DB-DB15Y	Yaesu	FT-DX3000	$24.95

AMERITRON



ALS-1300 Solid State HF Amplifier

- Coverage: 1.5 to 22 MHz (10-12 meters with optional install kit)
- Power output:
  - 1,200 watts SSB
- (8) rugged MRF-150 power FETs
- Front panel ALC control
- Operate/Standby switch
- Instant bandswitching, no tuning required
- Lightweight switching power supply

AME-ALS-1300 Solid State Linear Amplifier ... **$2,519.95**

AMERITRON

AL-811H Linear Amplifier

- Coverage: all HF bands (user-modifiable to 10/12 meters)
- Power output:
  - 800 watts PEP SSB
  - 600 watts CW
  - 400+ watts RTTY, SSTV, FM and AM
- Tube complement: (4) rugged, neutralized 811A transmitting tubes
- Transmit LED
- Operate/Standby switch

AME-AL-811H Linear Amplifier..... **$999.95**

AME-AL-811HXCE* Linear Amplifier, CE-Certified **$1,098.95**

***Export Only.**

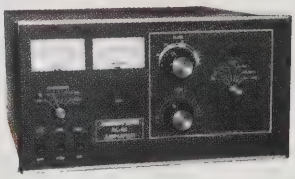
AL-811 Linear Amplifier

- Coverage: all HF bands (user-modifiable to 10/12 meters)
- Power output:
  - 600 watts PEP SSB
  - 500 watts CW
  - 400 watts RTTY, SSTV, FM and AM
- Tube complement: (3) rugged, neutralized 811A transmitting tubes

AME-AL-811 Linear Amplifier..... **$819.95**

AME-AL-811XCE* Linear Amplifier, CE-Certified... **$948.95**

***Export Only.**



AL-82 Linear Amplifier

- Coverage: 1.8, 3.5, 7, 14, 21 MHz and WARC bands (user-modifiable to include 28 MHz)
- Power output:
  - 1,800 watts continuous
  - 1,500 watts RTTY, CW (70% plate efficiency)
  - 1,500 watts PEP, SSB, SSTV (low distortion)
- In-rush current protection
- Factory-wired for 240 Vac, 50/60 Hz

AME-AL-82 Linear Amplifier..... **$2,999.95**

AL-1200 Linear Amplifier

- Coverage: 1.8, 3.5, 7, 14, 21 MHz and WARC bands (user-modifiable to include 28 MHz)
- Power output:
  - 1,500 watts
  - 2,500+ watts (PEP two tone for 1/2 hour)
- Forced air cooling system
- Factory-wired for 240 Vac, 50/60 Hz

AME-AL-1200 Linear Amplifier..... **$4,294.95**

AL-1500 Linear Amplifier

- Coverage: 1.8, 3.5, 7, 14, 21 MHz and WARC bands (user-modifiable to include 28 MHz)
- Power output:
  - 1,500 watts (1/2 hour continuous carrier)
  - 2,500 watts (30 second continuous carrier)
- In-rush current protection
- Multi-voltage power transformer
- QSK-compatible

AME-AL-1500 Linear Amplifier..... **$4,019.95**

ATP-102 Deluxe Amplifier Tuning Pulser

- Relieves stress on amps, tuners and dummy loads during tuning
- Works with any solid state transceiver or transmitter
- Front panel adjustment controls

AME-ATP-102 Deluxe Amplifier Tuning Pulser ... **$79.95**

ALS-600 & ALS-600S Solid State Linear Amplifiers

ALS-600 Solid State Linear Amplifier

- Coverage: 1.5 to 22 MHz (10-12 meters with optional install kit)
- Power output: • 600 watts PEP • 500 watts CE
- (4) rugged TMOS RF power FETs
- Quiet, low-speed, low-volume fan
- Includes 120/220 Vac 50/60 Hz power supply
- Instant bandswitching, no tuning required*

AME-ALS-600 Solid State Linear Amplifier **$1,809.95**

ALS-600S Solid State Linear Amplifier

- Coverage: 1.5 to 22 MHz (10-12 meters with optional install kit)
- Power output: • 600 watts PEP • 500 watts CE
- (4) rugged TMOS RF power FETs
- Includes lightweight switching power supply
- Quiet, low-speed, low-volume fan
- Instant bandswitching, no tuning required*

**With ARI-500 (not included)*

AME-ALS-600S Solid State Linear Amplifier... **$1,719.95**

ALS-606 Series Amplifiers

- Coverage: HF plus 6 Meters
- Power output:
  - 600 watts PEP
  - 500 watts CW
- TMOS RF power FETs
- Quiet, low-speed, low-volume fan
- Automatic band switching with DB Series band data cable; sold separately, see the table in the left hand column.

AME-ALS-606 Amp with Linear Supply **$2,098.95**

AME-ALS-606S Amp with Switching Supply..... **$1,998.95**

AL-80B Linear Amplifier

- Coverage: all HF bands (user-modifiable to 10/12 meters)
- Power output:
  - 1,000 watts PEP SSB
  - 800 watts CW
  - 500 watts RTTY, SSTV, FM and AM
- Tube: (1) genuine, warrantied 3-500ZG transmitting tube
- In-rush current protection
- Multi-voltage power transformer

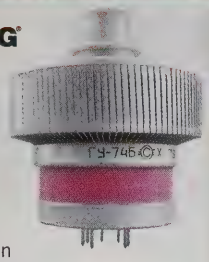
AME-AL-80B Linear Amplifier..... **$1,599.95**

Ameritron Amplifier Modification Kits

Add 10 and 12 meter band coverage to your Ameritron amplifier. Proof of U.S. Amateur License is required when purchasing 10 meter modification kits. Be sure to check your amplifier's serial number for modification compatibility before you order.

Part Number	For Amp Model	Serial Number	Price
AME-MOD-10M	ALS-500M, 600	12521 & -	$29.95
AME-MOD-10MB	ALS-600, 600S	12522 & +	$29.95
AME-MOD-10MK	ALS-1300	Any	$39.95

DX ENGINEERING



GU74B Ceramic Power Tetrode

Equivalent to the 4CX800A, this tetrode is an exact replacement for the tube in your Alpha 99, ACOM 2000A and many other high performance RF amplifiers. It has a plate dissipation rating of 800 watts and, when used as a linear power amplifier, the GU74B will make 750 watts for both PEP SSB and key-down CW. In modern amplifiers with auto-tuning and tube protection circuits, we've seen these tubes produce much more power and exhibit an incredibly long service life.

DXE-GU74B GU74B/4CX800A Ceramic Power Tetrode.....**$349.99**

AMERITRON

Automatic Bandswitching Radio Interface

Connect this between your Ameritron ALS-Series Solid State Amplifier and transceiver, and it will automatically select the right frequency range for your amp based on the band you're using. It works with most Icom, Kenwood and Yaesu transceivers, and there's a full compliment of interface cables available for easy hookup.

AME-ARI-500 Automatic Bandswitching Radio Interface.....**$119.95**

ARI-500 Interface Cables-These cables let you connect your specific transceiver to the ARI-500 and your amplifier.

Part Number	Radio Brand	Description	Price
AME-RJ-DB15HE	Elecraft	K3 (BCD)	$24.95
AME-RJ-7DI	Icom	7-Pin DIN	$24.95
AME-RJ-13D	Icom	13-Pin DIN	$24.95
AME-RJ-DB98MK	Kenwood	8-Pin Mini-DIN	$24.95
AME-RJ-8MY	Yaesu	8-Pin Mini-DIN	$24.95
AME-RJ-8MY2	Yaesu	8-Pin Mini-DIN	$24.95
AME-RJ-10MY	Yaesu	FT-450/950, FTDX-1200	$24.95
AME-RJ-DB9Y	Yaesu	CAT/FT-847	$24.95
AME-RJ-DB15Y	Yaesu	FT-DX3000	$24.95

AMERITRON

ARB-704 Amplifier/ Transceiver Interface Buffer

- Protects your expensive radio from damage
- Works with almost any transceiver
- No moving parts, almost instant switching

AME-ARB-704 Interface Buffer **$59.95**

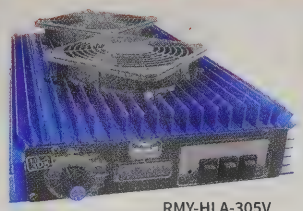
AME-ARB-704I2 Interface Buffer with Cable for Icom 7000/760/718 .....**$59.95**

ARB-704 Interface Cables

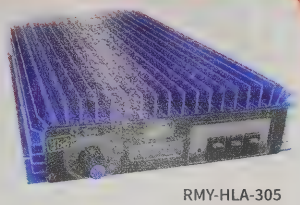
These cables let you connect your specific transceiver to Ameritron's ARB-704 Interface Buffer. They are plug-and-play configurations that let you safely connect virtually any modern transceiver to your ARB-704.

Part Number	Radio	Description	Price
AME-PNP-7DI	Icom	7-Pin DIN	$17.95
AME-PNP-8DI	Icom	8-Pin DIN	$17.95
AME-PNP-13D	Icom	13-Pin DIN	$17.95
AME-PNP-7D	Kenwood	7-Pin DIN	$17.95
AME-PNP-8MK	Kenwood	8-Pin Mini-DIN	$17.95
AME-PNP-5M	Yaesu	5-Pin Mini-DIN	$17.95
AME-PNP-8D	Yaesu	8-Pin DIN	$17.95
AME-PNP-8M	Yaesu	8-Pin Mini-DIN	$17.95
AME-PNP-10MY	Yaesu	10-Pin Mini-DIN	$17.95
AME-PNP-DB15Y	Yaesu	DB15M	$17.95

RMY-LA-145



RMY-HLA-305V



RMY-HLA-305

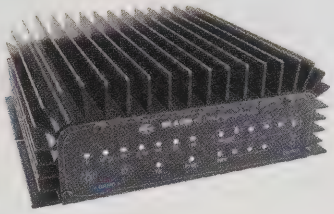
HF and VHF Amplifiers

For over 40 years, RM Italy has made versatile and compact amplifiers for base, mobile and handheld radios. By controlling every phase of the manufacturing process, RM Italy is able to maintain incredibly high quality standards and capitalize on opportunities for innovation. These LA-250/305(V) VHF and HLA-305(V) HF solid state amplifiers are a smart choice for operators using a mobile or portable radio. The LA-144/145 models are a great way to maximize your HT's operating reach.

RM ITALY

Part Number	Frequency Coverage	Max. Input Power	Max. Output Power (PEP)	Operating Modes	Interface	Cooling	Price
RMY-LA-250	2 Meters	25 Watts	200 Watts	AM, FM, SSB, CW	Mode Select, LCD Screen	Heat Sink	$496.99
RMY-LA-250V	2 Meters	25 Watts	200 Watts	AM, FM, SSB, CW	Mode Select, LCD Screen	Fans	$541.99
RMY-HLA-305	160-10 Meters	10 Watts	200 Watts	AM, FM, SSB, CW, RTTY, Digital	Band and Mode Select, LCD Screen	Heat Sink	$698.99
RMY-HLA-305V	160-10 Meters	10 Watts	200 Watts	AM, FM, SSB, CW, RTTY, Digital	Band and Mode Select, LCD Screen	Fans	$728.99
RMY-LA-144	2 Meters	4 Watts	60 Watts	AM, FM, SSB, CW	SSB/FM Select	Heat Sink	$124.99
RMY-LA-145	2 Meters	5 Watts	85 Watts	AM, FM, SSB, CW	SSB/FM Select	Heat Sink	$155.99

New!



RMY-MLA100

RM ITALY

HF+6M Linear Amplifier

RM Italy's new compact 100 watt, 1.8 to 54 MHz amplifier features extremely fast RX/TX switching; LED indicators for SWR and output power; automatic protections against overdriving, overheating and excessive ROS; band filters with manual or automatic selection; and a host of other benefits. Ruggedly built, the MLA100 is a great choice for QSK CW, SSB, digital and other operations covering the HF bands and 6 meters.

RMY-MLA-100 100 Watt HF+6M Linear Amplifier ..... **Pending FCC Approval**

RMY-MLA-100V 100 Watt HF+6M Linear Amplifier with Fan ..... **Pending FCC Approval**

DX ENGINEERING

572B Tube for Power Amplifiers

Supplies of vintage amplifier tubes are drying up and finding quality new tubes has been a challenge. DX Engineering is now a source for the popular 572B model power tube, which means you can finally repair or upgrade your 572B linear amplifier. Used in pairs, DX Engineering 572B tubes are capable of generating up to 600 watts of RF transmit power; quads will produce 1,200 watts.

DXE-572B 572B Power Tube, Each.....**$81.99**

Visit DXEngineering.com for more Amplifier Accessories.

Wideband HF+6M Linear Amplifier

RM Italy introduces a versatile amplifier that comes loaded with a host of Ham-friendly benefits. The BLA600 is a fully automatic wideband compact linear amplifier that covers all the HF bands and 6 meters, from 1.8 to 54 MHz. The unit delivers up to 500 watts SSB PEP and features dual MCU controls for protection against high RF input driver levels, high output VSWR, overcurrent and more. Its dual large diameter MCU-controlled multispeed fans keep it cool and running at peak efficiency. For CW QSK operation, the BLA600 provides fast and silent PIN diode switching that makes it a perfect companion in your shack. Its rugged 50V Freescale MRFE6VP5600H power transistors deliver high reliability and consistent high linear RF output. The low-noise amplifier also includes 3 user-configured teflon-insulated antenna output sockets, 2 x 16 LCD display to view amplifier status, and built-in heavy duty AC power supply.

RM ITALY

RMY-BLA600 Wideband Linear Amplifier... **$2,499.99**

AMERITRON

QSK-5 High Power Transmit/ Receive Switches

- Electronic PIN diode switching for fast QSK operation
- Power handling:
  - 2,500 watts PEP
  - 2,000 watts CW
  - 750 watts RTTY/SSTV/FM
- Sure switching prevents hot switching RF power
- AmpSaver feature shuts off tube current between dots and dashes

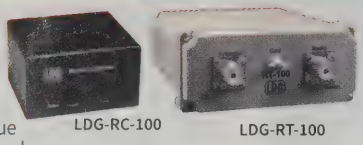
AME-QSK-5 Self-Contained QSK-5 High Power T/R Switch, 120 Vac.....**$379.95**

AME-QSK-5X Self-Contained QSK-5 High Power T/R Switch, 220/240 Vac **$399.95**

AME-QSK-5PC PC Board Assembly, QSK-5 High Power T/R Switch.....**$299.95**

DXEngineering.com is loaded with detailed photos, specs, videos, and more!

LDG ELECTRONICS Remote Antenna Tuner and Console Packages


LDG-RC-100 LDG-RT-100

Just install one of these near your feedpoint, and you'll remedy a lot of power loss issues due to SWR in your feedline. These tuners are packed with 2,000 memories for instant band switching with sizzling fast speed and precision. They can tune 4 to 800 Ω loads, and are well suited for dipoles, verticals, inverted Vs, beams or any coax-fed antenna.

The 600 series can handle up to 600 watts of coaxial in/out power, and 200 watts in digital mode. The 100 series handles up to 125 watts SSB/CW, and 30 watts digital.

The combo packages include a remote control unit. The controller has an integrated DC power injector to supply the tuner, plus an on/off switch and tune button for comprehensive tuner control.

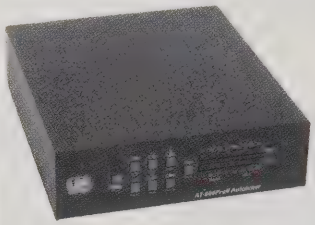
LDG-RT-RC-100 100 Watt Remote Tuner and Console **$249.99**
LDG-RT-RC-600 600 Watt Remote Tuner and Console **$449.99**

Antenna Tuner Cables-The proper link between your tuner and radio is essential. LDG Electronics makes it easy to create the perfect match with these interface cables.

Part Number	Radio	Notes	Price
LDG-IC-PAC	Icom	For radios with AH-3/4 port, 14"	$10.99
LDG-KC-100	Kenwood	Replacement for LDG KT-100 tuner cable	$11.99
LDG-Y-ACC	Yaesu	For FT-100/857/897 radios	$12.99
LDG-DC-PWR-CABLE	LDG	Replacement power cable, LDG devices	$4.99

LDG ELECTRONICS

LDG-AT1000PROII


LDG-AT-600PROII

AT-1000ProII Automatic Antenna Tuner
- 1,000 watts power handling maximum
- 1.8 to 54 MHz frequency range
- 2,000 memories for each antenna and auto configuration storage
- Tunes 6 to 1,000 Ω loads (16 to 150 Ω on 6M)
- 10 second tuning time, 0.2 second memory tuning
- Bar graph LED display shows SWR and selectable power ranges

LDG-AT1000PROII **$539.99**

AT-600ProII Automatic Antenna Tuner
- Tunes 6 to 800 Ω loads
- 600 watts power handling maximum
- 1.8 to 54 MHz frequency range
- Two-position switch with memories for each position
- 0.5 to 6 second tuning time, 0.1 second memory tune
- 4,000 memories for instant band switching
- Bright LED display
- Requires 11 to 16 Vdc at 750mA

LDG-AT-600PROII **$369.95**
Optional Remote Meter for AT-600ProII
LDG-M-600 ..... **$129.99**

DX Engineering DXE-RF-PRO-1B - DX Engineering RF-PRO-1B® Active Magnetic Loop Antennas

Active Magnetic Loop Receive Antenna (Formerly Pixel/InLogis), 38 in. Dia., Incl. Preamp, 120 Vac Adapter, Kit

1 ADD TO CART
Add to Wishlist

Part Number: DXE-RF-PRO-1B
Availability: In Stock
Estimated Ship Date: Today

Documentation Multiple Images Oversize

DXEngineering.com
We're always adding and developing innovative products that improve your on-air experience. Find the hottest new gear (including all the latest stuff that we couldn't cram into this catalog) at DXEngineering.com.

Our website's tech support section has a comprehensive FAQ, a reference library filled with tech articles and free downloadable instruction manuals. Remember, if you've got a nagging issue with your station, you can always contact us via phone or email for solutions.

Like to save money? DXEngineering.com's "Hot Deals" section is packed with weekly specials and deeply discounted products. Check back weekly to see what's on sale. You can also follow us on Twitter, Instagram and Facebook for announcements and updates.

YT-100 Automatic Antenna Tuner
- Tailored to certain Yaesu radios
- 100 watts power handling maximum
- 1.8 to 54 MHz frequency range
- 2,000 memories, sorted by frequency
- Tunes 4 to 800 Ω loads (16 to 150 Ω loads on 6M)
- SO-239 in/out connections for dipoles, verticals, beams, etc.
- Powered from Yaesu radio using supplied CAT interface cable

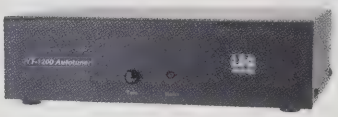
LDG-YT-100 ..... **$199.99**

Z-11ProII Automatic Antenna Tuner
- 125 watts power handling maximum
- 1.8 to 54 MHz frequency range
- 0.1 to 6 second tuning time, 0.1 second memory tune
- 4,000 memories with automatic storage
- Tunes 6 to 100 Ω loads (16 to 150 Ω on 6M)
- Can operate using four AA batteries with user-installed holder
- Requires 6 to 16 Vdc at 300mA maximum, 25uA standby

LDG-Z-11PROII **$179.99**

Z-100Plus Automatic Antenna Tuner
- 125 watts power handling maximum
- 1.8 to 54 MHz frequency range
- 0.1 second memory tune
- 2,000 memories, sorted by frequency
- Tunes 6 to 800 Ω loads (16 to 150 Ω on 6M)
- SO-239 in/out connections for dipoles, verticals, beams, etc.
- Requires 7 to 18 Vdc at 100mA maximum

LDG-Z-100PLUS **$159.99**



YT-1200 Automatic Antenna Tuner
- Tailored to the Yaesu FTDX-1200, FT-450, FT-950 and FTDX-3000
- Handles .1 to 100 watts, 30 watts on PSK
- 1.8 to 54 MHz frequency range
- 2,000 fast memories
- Tunes 4 to 1,000 Ω loads
- Includes 1.5' CAT/Power interface cable

LDG-YT-1200 ..... **$259.99**

Automatic Antenna Tuner
- Tailored to the Yaesu FT-817 radio
- Excellent for QRP operation
- 20 watts power handling maximum
- 1.8 to 54 MHz frequency range
- 2,000 memories, sorted by frequency
- Tunes 6 to 600 Ω loads
- Powered by 4 AA batteries (not included)

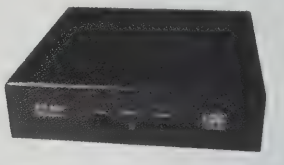
LDG-Z-817 ..... **$129.99**

AT-100ProII Automatic Antenna Tuner
- 125 watts power handling maximum
- 1.8 to 54 MHz frequency range
- Two-position switch
- 2,000 memories for each antenna and auto configuration storage
- Tunes 6 to 1,000 Ω loads (16 to 150 Ω on 6M)
- Matches virtually any coax-fed antenna
- Bar graph LED display shows power, SWR, mode and status
- Requires 11 to 16 Vdc at 500mA

LDG-AT-100PROII **$229.99**

AT-200ProII Automatic Antenna Tuner
- 250 watts power handling maximum
- 1.8 to 54 MHz frequency range
- 2-position switch with 8 antenna memories
- 0.5 to 6 second tuning time
- Tunes 6 to 800 Ω loads (6 to 3,600 Ω with 4:1 balun)
- 4,000 memories for instantaneous band switching
- Easy-to-read LED display for RF power, SWR and status
- Requires 11 to 16 Vdc at 750mA

LDG-AT-200PROII **$259.99**



KT-100 Automatic Antenna Tuner
- Works with any AT-300 compatible Kenwood radio
- 125 watts power handling maximum
- 1.8 to 54 MHz frequency range
- 0.1 to 6 second tuning time, 0.1 second memory tune
- Tunes 6 to 1,000 Ω loads (6 to 4,000 Ω with 4:1 balun)
- Optional external balun allows random, long wire or ladder line fed antennas
- Powered by Kenwood transceiver via included interface cable

LDG-KT-100 ..... **$199.99**

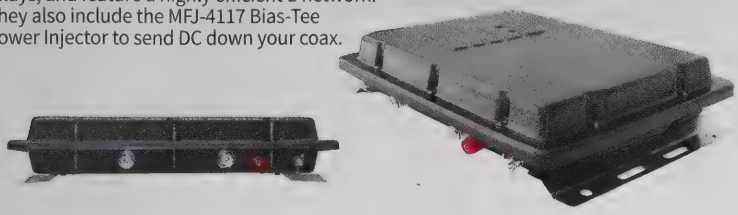
IT-100 Automatic Antenna Tuner
- Works with any AH-3/AH-4 compatible Icom radio
- 125 watt power handling maximum
- 1.8 to 54 MHz frequency range
- 0.1 to 6 second tuning time, 0.1 second memory tune
- Tunes 4 to 800 Ω loads (4 to 3,600 Ω with 4:1 balun)
- Optional external balun allows random, long wire or ladder line fed antennas
- Powered by Icom transceiver via included cable

LDG-IT-100 ..... **$179.99**

300, 600 and 1,500 Watt Remote Autotuners

MFJ

These automatic tuners are mounted in durable, weather resistant hard-plastic cases for remote outdoor applications. They cover 1.8 to 30 MHz, use heavy-duty 16 amp/1,000-volt relays, and feature a highly efficient L-network. They also include the MFJ-4117 Bias-Tee Power Injector to send DC down your coax.



MFJ-998RT handles 1,500 watts SSB/CW power level and matches 12-1,600 Ω antennas.

MFJ-994BRT handles 600 watts SSB/CW power level and matches 12-800 Ω antennas.

MFJ-993BRT handles 300 watts SSB/CW power level and matches 6-1,600 Ω antennas.

MFJ remote tuners let you quickly tune any antenna, balanced or unbalanced, automatically. It's a comprehensive automatic antenna tuner ideal for Multiband Verticals like DX Engineering's popular 43 foot models.

1,500 Watt Legal Limit Remote Autotuner

The MFJ-998RT IntelliTuner™ is a comprehensive Full Legal Limit remote automatic antenna tuning unit. It lets you rapidly tune almost any unbalanced or single-wire antenna automatically. Balanced feedlines may be used with an MFJ-912 1.5 kW 4:1 balun connected to the MFJ-998RT antenna output.

MFJ's exclusive InstantRecall™, IntelliTune™ and AdaptiveSearch™ algorithms give you fast automatic tuning with more than 20,000 non-volatile VirtualAntenna™ memories. Each of the two antenna banks has four banks of memory; each memory bank has over 2,500 non-volatile memories for tuner settings. The banks allow you to save settings for several antennas, giving you the flexibility to move your tuner between antennas or to different locations without losing the old settings.

The tuner includes a highly efficient switched-L network with wide matching capability, 1.8 to 30 MHz coverage, backlit LCD display and heavy-duty 16 amp/1,000-volt relays. It is rated at 1,500 watts SSB/CW and will match impedances from 12 to 1,600 Ω (SWR up to 32:1).

It includes the MFJ-4117 Bias-Tee Power Injector to send DC and RF down your coax.

MFJ-998RT 1,500 Watt Legal Limit Remote Autotuner **$739.95**

600 Watt Remote Autotuner

The MFJ-994BRT IntelliTuner™ is a 600 watt remote automatic antenna tuning unit similar is size to the MFJ-993BRT. At 600 watts, it's a perfect match for Ameritron's solid state ALS-600/S solid state amplifier and popular tube-type AL-811/H amplifiers.

You can eliminate extra feedline loss caused by SWR by tuning your antenna outdoors at its feedpoint. This tuner includes the MFJ-4117 Bias-Tee Power Injector to send DC and RF down your coax. The MFJ-994BRT lets you quickly tune any 12-1,600 Ω antenna, balanced or unbalanced, automatically.

MFJ-994BRT 600 Watt Remote Autotuner **$399.95**

300 Watt Remote Autotuner

The MFJ-993BRT IntelliTuner™ is a 300 watt remote automatic antenna tuning unit mounted in a durable hard-plastic case. Measuring just 9.25" W x 3" H x 14.25" D, it covers 1.8 to 30 MHz, has heavy-duty 16 amp/1,000-volt relays and is a highly efficient L-network. It also includes the MFJ-4117 Bias-Tee Power Injector to send DC and RF down your coax.

It's intended to be mounted outside at the feedpoint of your antenna, providing a 50 Ω match to your coaxial cable feedline and eliminating additional feedline loss caused by SWR.

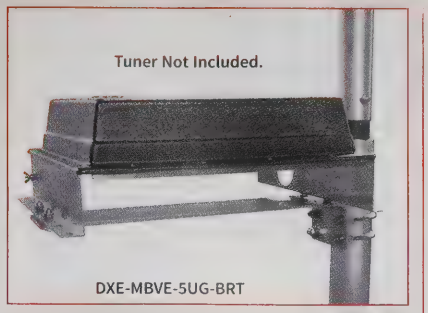
The MFJ-993BRT lets you quickly tune any 6-1,600 Ω antenna, balanced or unbalanced, automatically.

MFJ-993BRT 300 Watt Remote Autotuner **$299.95**

Antenna Tuners

Here are some of MFJ's most popular HF antenna tuners, including several from its manual Versa Tuner and automatic IntelliTuner lines. Many IntelliTuners are designed to work with a specific transceiver; find the right one for your radio, along with plenty of specs on each at DXEngineering.com.

Part Number	Type	Power Handling	Price
MFJ-939I	Intellituner	200 W	$159.95
MFJ-939K	Intellituner	200 W	$159.95
MFJ-939Y	Intellituner	200 W	$159.95
MFJ-939Y3	Intellituner	200 W	$159.95
MFJ-939Y4	Intellituner	200 W	$159.95
MFJ-993B	Intellituner	300 W	$249.95
MFJ-994B	Intellituner	600 W	$359.95
MFJ-949E	Versa Tuner II	300 W	$175.95
MFJ-969	Versa Tuner II	300 W	$209.95
MFJ-962D	Versa Tuner III	800 W	$289.95
MFJ-989D	Versa Tuner V	1,500 W	$359.95



DX ENGINEERING

Remote Antenna Tuner Mounting Kits

It's important to mount your MFJ remote antenna tuner as close as you can to your DX Engineering MBVE-5A multi-band vertical antenna to maintain signal efficiency. Just make sure to protect it from weather, rising water and curious critters.

Use DX Engineering's new remote antenna mounting kits. They attach right to the base of the vertical. More importantly, they'll mount the tuner up off the ground—away from Mother Nature and her furry friends.

Select your kit based on your tuner model; the 993BRT, 994BRT, 998BRT remote tuners are supported.

DXE-MBVE-5AE-BRT Mounting Kit, for MFJ-993/994BRT **$338.97**
DXE-MBVE-5AE-RT Mounting Kit, for MFJ-998RT **$393.97**

Antenna, 43' with Tuner Mounting Kits and Tuner

DXE-MBVE-5AEBRT3 Mounting Kit, Includes MFJ-993BRT Tuner **$718.39**
DXE-MBVE-5AEBRT4 Mounting Kit, Includes MFJ-994BRT Tuner **$818.39**
DXE-MBVE-5AERT8 Mounting Kit, Includes MFJ-998RT Tuner **$1,213.39**

Remote Antenna Tuner Mount Upgrade Kits

If you have an earlier model MBVE-5, you can also upgrade to the 5AE mount with these kits.

DXE-MBVE-5UG-BRT Upgrade Kit, for MFJ-993/994BRT **$129.97**
DXE-MBVE-5UGBRT3 Upgrade Kit, Includes MFJ-993BRT Tuner **$429.92**
DXE-MBVE-5UGBRT4 Upgrade Kit, Includes MFJ-994BRT Tuner **$529.92**
DXE-MBVE-5UG-RT Upgrade Kit, for MFJ-998RT **$184.97**
DXE-MBVE-5UGRT8 Upgrade Kit, Includes MFJ-998RT Tuner **$924.92**

ALINCO

Automatic Random-Length Antenna Tuner

Designed specifically for Alinco radios, this antenna tuner can tune non-resonant verticals, wire antennas and mobile installations. It covers 1.6-30 MHz, when used with a 12-meter element. Rugged and versatile, the EDX-2 handles up to 200 watts PEP. Check DXEngineering.com to confirm radio compatibility.

ALO-EDX-2 Automatic Random-Length Antenna Tuner **$384.99**

ICOM

AH-4 Antenna Tuner

Icom's AH-4 antenna tuner lets you automatically tune a 23 foot or longer wire antenna for portable or mobile HF/50 MHz use. The PTT tune function makes changing bands easy, too.

ICO-AH-4 Antenna Tuner **$299.99**
ICO-OPC-136 AH-4 Control Cable, 16.4' **$54.99**

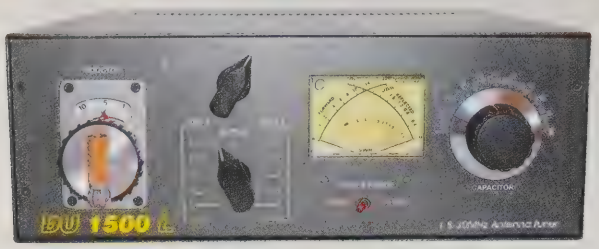
YAESU
The radio

Automatic Antenna Tuners

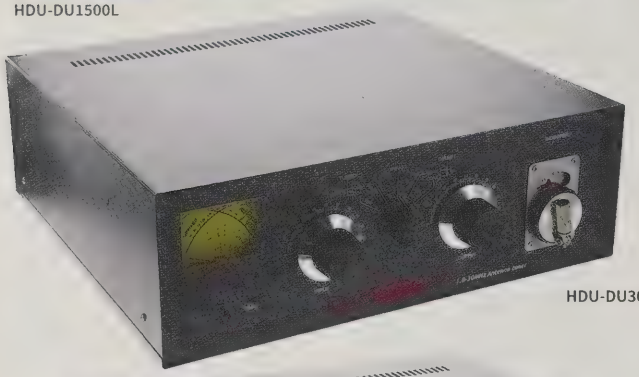
Yaesu offers a pair of antenna tuners to complement its base and portable radios. These compact tuners cover 1.5-54 MHz and handle 100 watts. Switching bands is easy, thanks to the tuners' memory storage and laser-fast tuning.

YSU-FC-30 Antenna Tuner for FT-857/897 ..... **$249.99**
YSU-FC-40 Antenna Tuner for FTDX-1200/300 and FT-450/857 ..... **$329.99**

HA8DU PRODUCTS



HDU-DU1500L



HDU-DU3000TB

HDU-DU3000T

HDU-DU3500AL

HA8DU Antenna Tuners

Well regarded by operators throughout Europe, HA8DU manual and automatic desktop antenna tuners deliver pure performance in a well-built unit inside and out. Features include switching for tuned or direct connection to multiple antenna ports, a bypass connector for an external dummy load, cross-needle power and SWR meters on manual models, a top-grade turns counter on manual roller tuners and heavy-gauge coated steel enclosures. These L- and T-type tuners deliver 1.8 MHz to 30 MHz coverage and smooth tuning that make them a long-lasting addition to any station.

Manual		
HDU-DU1500L	L-Type, 2,000W, 1.8-30 MHz	$729.99
HDU-DU1500T	T-Type, 1,500W, 1.8-30 MHz	$649.99
HDU-DU1500T-DIFF	T-Type, 1,500W, 1.8-30 MHz, Differential Matching	$749.99
HDU-DU3000T	T-Type, 3,000W, 1.8-30 MHz	$799.99
HDU-DU3000TB	T-Type, 3,000W, 1.8-30 MHz, Balanced	$899.99
Automatic		
HDU-DU3500AL	L-Type, 3,500W, 1.8-30 MHz	$2,599.99

PAS-HF-AUTO

PAS-HF-AUTO-R

Palstar

HF-AUTO 1,500 Watt Automatic Antenna Tuner

Palstar is taking the low-power autotuner to the next level with the HF-AUTO. This unit uses quiet, continuously variable components to create a perfect antenna match, without noisy relays. It can tune with a mere 2 watts of power, yet can handle 1,500 watts. The HF-AUTO covers 1.8 through 54 MHz, tunes within 6 seconds and has a large, backlit LCD for easy readout of RF power, SWR, frequency and more.

Adding the optional Remote Control allows you to operate the HF-AUTO from up to 500 feet away. Depending on when it was made, your HF-AUTO tuner may not work with the remote without an upgrade, so visit DXEngineering.com to check compatibility.

PAS-HF-AUTO	1,500 Watt Automatic Antenna Tuner	$1,549.99
PAS-HF-AUTO-R	Antenna Tuner Remote Control	$495.99
PAS-9009600	HF-AUTO-R Remote Control Cable	$89.99

AT2K 2,000 Watt Antenna Tuner

Building upon Palstar's impressive AT1500CV tuner, this AT2K 2,000 Watt Antenna Tuner features a new, smaller roller inductor, allowing the AT2K to tune from 160 meters to 6 meters. It can match dipoles, center fed doublets, verticals, end-fed wire, delta loops, beams, Windoms, inverted vees and many more antenna types.

The AT2K features three impedance matching controls for greater tuning range, 6-position antenna selector switch and Peak/Peak Hold metering in two ranges, 300 and 3,000 watts. Standing Wave Ratio measurements are displayed with this illuminated cross-needle meter. Its chassis is made of 11-gauge aluminum with a powdercoated finish on the front and top cover.

- Wide impedance range 20 to 1,500 Ω from 160 to 6 meters (assuming resistive load)
- Low minimum custom variable capacitors, 15pF to 400pF at 4.5 kV
- 26 uH 5 kV ceramic body roller inductor with turns counter
- Silver plated inductor wheel shaft and contact wheel

PAS-AT2K 2,000 Watt Antenna Tuner $579.99

AT4K 2,500 Watt Antenna Tuner

The legendary AT4K 2,500 Watt Antenna Tuner built the Palstar reputation for high quality and durability. Updated for the 21st century, the AT4K now has a switchable, dual-movement active peak and peak hold wattmeter. The selection between unbalanced or balanced output is relay-switched with a front panel control on the AT4K.

The AT4K T-matching wide range network uses a 1:1 unbalanced-to-balanced transformer in the input of the network. When the network is properly tuned, an impedance of 50 Ω is presented to the input and output of the balun.

- T-match circuit with impedance matching range from 8 to 2,000 Ω
- Custom large value variable capacitors, 460pF at 6 kV
- 10 Amp silver plated ceramic body roller inductor handle-driven crank
- 11-gauge aluminum chassis, powdercoated on front and top

PAS-AT4K 2,500 Watt Antenna Tuner $899.99

AT5K 3,500 Watt Antenna Tuner

Nicknamed the "Rock Crusher," this American-made Palstar AT5K 3,500 Watt Antenna Tuner delivers an impressive 3,500 watts single tone continuous with low losses, and 5,000 watts PEP performance at certain impedance ranges. The AT5K tuner offers a wide impedance tuning range from 1.8 through 22 MHz with limited impedance tuning from 22 to 29.5 MHz.

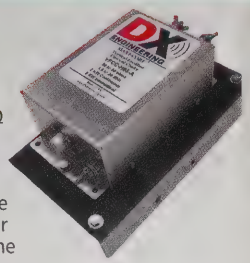
The AT5K tuner provides balanced output with a high power 5,000 watt PTFE cable balun at the input of the tuner circuit. When the network is properly tuned, a 50 Ω impedance will be presented to the input and output of the balun for maximum efficiency. This tuners is designed to handle both balanced line feeds and unbalanced coax feedlines.

- Fan-cooled for extended 100% duty cycle operation
- Full-performance T-match circuit, wide range impedance matching from 8 to 2,000 Ω
- Custom large value variable capacitors, 600pF at 6 kV
- 10 amp silver plated ceramic body roller inductor handle-driven crank
- 11-gauge aluminum chassis, powdercoated on front and top
- Power connector and cable included

PAS-AT5K 3,500 Watt Antenna Tuner $1,199.99

DX ENGINEERING

Vertical Feedline Current Choke



When quarter-wave antennas are constructed over a good radial system, they have a feedpoint impedance of about 36 Ω and currents are equal between the vertical section and the radial system. If the radial system is less than ideal—due to short radials, too-few radials or poor soil conductivity—the antenna system will try to use the feedline shield as part of the radial system. This leads to a loss in the efficiency and a higher take-off angle. Often the current introduced on the shield of the feedline causes RFI at the operator position.

Placing a vertical feedline current choke (VFCC) at the base of the quarter-wave antenna forces the currents to equalize between the vertical section and the radial system, even if the radial system is less than ideal. The balanced terminals of the VFCC should be connected directly to the base of the antenna and radial plate with appropriate lengths of low-inductance tinned copper braid or copper strap.

The DX Engineering VFCC is supplied with an insulated mounting shelf to isolate the feedline shield from ground. Purchase the optional V-Saddle Clamp for mounting the VFCC to pipe up to 2 inches OD.

DXE-VFCC-H05-A	Vertical Feedline Current Choke Kit, 2/5 kW, HF	**$149.99**
DXE-VFCC-H10-A	Vertical Feedline Current Choke Kit, 5/10 kW, HF	**$199.99**
DXE-SSVC-2P	V-Saddle Clamp, for 1" to 2" OD Pipe	**$12.49**

Line Isolator

If RFI from your station is affecting your A/V equipment or computer, or if RFI is causing audio distortion while transmitting, then there's a good chance that your feedline is acting as an antenna. The root cause of the problem is poor isolation of the feedline from antenna currents.

COMTEK's new HF+6M Line Isolator can squash that RFI in your 50 Ω, coax-fed antenna system. Better yet, it won't compromise station performance and will actually improve your antenna's bandwidth. Plus, it handles the full legal limit. Durable and well suited to outdoor use, this isolator is an ideal complement to any HF antenna feedline. It's also a great way to compensate for an imperfect ground system, stop feedline radiation, and reduce RFI both to and from your radio.

COM-LI-11140	Line Isolator	**$99.99**

DX ENGINEERING

New!

DXE-LA1-RFI

Color-Coded Ferrite RF Noise Reduction Kits

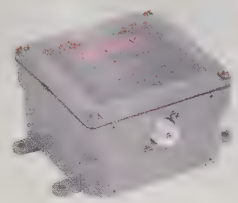
There's nothing more frustrating than searching through a box of unmarked ferrite toroids and beads, unsure of which ones are right for your application. The problem: They all look the same, but they're made from different mixes of ferrite, a ceramic made from oxides of magnetic metals. DX Engineering has selected mixes designed to block and dissipate RF currents, a technique that is proven to suppress radio frequency interference (RFI). Each mix works best over a certain frequency range. By color-coding our ferrite products, you can tell a toroid made from 31-mix from one made with 77-mix at a glance, taking the guesswork out of finding the right piece to place on your feedlines. Parts are color-coded as follows:

31-Mix, Blue – 1 MHz to 300 MHz	43-Mix, Silver – 25 MHz to 300 MHz
52-Mix, Orange – 200 MHz to 1 GHz	61-Mix, Red – 200 MHz to 2 GHz
75-Mix, Green – 150 KHz to 30 MHz	77-Mix, Pink – 100 KHz to 50 MHz

DXE-TC31-40-1	One 3" I.D. Toroid, Mix 31	**$33.99**
DXE-TC-COMBO	Ten 2.4" O.D. Toroids, Mixes 31/61/77	**$99.99**
DXE-LA1-RFI	For Linear Amplifier, 1 Toroid, 2 Snap-On, Mix 31	**$51.99**
DXE-LA2-RFI	For Linear Amplifier, 1 Toroid, 3 Snap-On, Mix 31	**$66.99**
DXE-LA3-RFI	For Linear Amplifier, 1 Toroid, 4 Snap-On, Mix 31	**$58.99**
DXE-AM-RFI	For AM Broadcast, 5 Toroids, 8 Snap-On, Mix 77	**$84.99**
DXE-TC52-24-2	Two 1.4" I.D. Toroids, Mix 52	**$29.99**
DXE-CSB75-375	One .375" I.D. Snap-On Bead, Mix 75	**$17.99**
DXE-CSB75-750-2	Two Large .75" I.D. Snap-On Beads, Mix 75	**$39.99**
DXE-CSB31-10-1	One 1" I.D. Snap-On Bead, Mix 31	**$24.99**
DXE-CSB31-525-5	Five 0.5" I.D. Snap-On Beads, Mix 31	**$29.99**
DXE-CSB31-750-5	Five .75" I.D. Snap-On Beads, Mix 31	**$32.99**
DXE-CSB31-275-10	Ten .275" I.D. Snap-On Beads, Mix 31	**$29.99**
DXE-CSB31-COMBO	4 Small, 2 Med., 2 Large Snap-On Beads, Mix 31	**$36.99**
DXE-ACDCGEN1-RFI	For AC/DC Generator, Two 3" I.D. Toroids, Mix 31	**$66.99**
DXE-ACDCGEN2-RFI	For AC/DC Generator, Two 1" I.D. Snap-On, Mix 31	**$38.99**
DXE-XCVR1-RFI	For HF Base Station, 2 Toroids, 3 Snap-On, Mix 31	**$37.99**
DXE-TC52-14-4	Four .9" I.D. Toroids, Mix 52	**$29.99**
DXE-CSB61-COMBO	20 Snap-On Bead Pack, Mix 61	**$86.99**
DXE-TC43-14-10	Ten .90" I.D. Toroids, Mix 43	**$32.99**
DXE-TC77-14-8	Eight .90" I.D. Toroids, Mix 77	**$31.99**
DXE-TC31-24-4	Four 1.4" I.D. Toroids, Mix 31	**$46.99**
DXE-TC43-24-4	Four 1.4" I.D. Toroids, Mix 43	**$39.99**
DXE-TC61-24-2	Two 1.4" I.D. Toroids, Mix 61	**$48.99**
DXE-TC75-24-2	Two 1.4" I.D. Toroids, Mix 75	**$32.99**
DXE-TC77-24-2	Two 1.4" I.D. Toroids, Mix 77	**$30.99**
DXE-TC43-82-25	25 .25" I.D. Toroids, Mix 43	**$49.99**
DXE-TC77-82-20	20 .25" I.D. Toroids, Mix 77	**$32.99**

Jerry Sevick W2FMI-inspired COMTEK Baluns

Baluns



COMTEK Baluns were inspired by the writings of Jerry Sevick W2FMI, published in his book *Understanding, Building and Using Baluns and Ununs.* COMTEK baluns are value-engineered to provide maximum performance at minimum cost while providing a superb, efficient match between unbalanced coax and balanced antennas.

- Design inspired by Jerry Sevick W2FMI with modern improvements from DX Engineering's in-depth balun R&D
- Unique high voltage compensating capacitors for unequalled SWR bandwidth
- Outstanding ferrite mix coated toroid core with special design to accommodate close coupling without excessive stress
- Exceptionally high and consistent common-mode impedance across the specified band width provides isolation where it is needed most
- Special wire size selection and PTFE-insulated wire sleeves provide exact impedance matching and superb insulation, unlike common Thermaleze® wire
- Typical insertion loss is less than 0.2 dB
- Power handling on HF is 3 kW CW and 5 kW SSB on single core models, 5 kW CW and 7 kW SSB on dual core models.
- Gasketed SO-239 connectors are silver plated with PTFE insulation
- All hardware is stainless steel, studs are 1/4"-20
- COMTEK Baluns are sealed in a weatherproof 4" x 4" x 2" NEMA box which makes an excellent outdoor enclosure

1:1 Single Core

COM-BAL-11150T	3 kW CW/5 kW SSB, 1.8 to 54 MHz*, Top Studs	**$104.99**

1:1 Dual Core

COM-BAL-11150DT	5 kW CW/7 kW SSB, 1.8 to 54 MHz*, Top Studs	**$118.99**

4:1 Single Core

COM-BAL-41130T	3 kW CW/5 kW SSB, 1.8 to 54 MHz*, Top Studs	**$109.99**

4:1 Dual Core

COM-BAL-41150T	5 kW CW/7 kW SSB, 1.8 to 54 MHz*, Top Studs	**$129.99**

Contact DX Engineering Customer Support to discuss your application for recommendations.
***Also may be used up to 54 MHz with reduced ratings.**

DX ENGINEERING

BN-86 and BN-4000D Balun Upgrade Kits

DXE-BN86-UPG-20T

If you're using the BN-86 or BN-4000D balun originally supplied with your Hy-Gain HF Yagi, these balun combos are a smart upgrade. They feature an all new single core 1:1 COMTEK balun specifically designed to be a better than new replacement for the original unit. The kits include the balun, plus the proper mounting brackets, stainless clamps and hardware to complete your retrofit. We offer the kits in four flavors, depending on your antenna setup.

Want to attach your balun to your antenna's driven element? You'll need our wire terminal and spacer kit, available separately:

Part Number	Balun Mounting Orientation on the Boom	Boom Diameter	Price
DXE-BN86-UPG-15T	Top	1.5" OD	**$145.96**
DXE-BN86-UPG-15B	Bottom	1.5" OD	**$145.96**
DXE-BN86-UPG-20T	Top	2" OD	**$145.96**
DXE-BN86-UPG-20B	Bottom	2" OD	**$145.96**

DX ENGINEERING

Yagi Balun Upgrade Kit

This kit is an upgrade for owners of DX Engineering's Skyhawk™ and Skylark HF Yagi antennas. The kit features a 1:1, 50 Ω balun that offers improved performance and durability over the bead balun originally supplied with the antennas. A DX Engineering balun mounting plate is included.

DXE-BAL-YAGI-UPG	Balun Yagi Upgrade Kit	**$135.99**

Check out our YouTube channel for in-depth tech tips and product demos!

Maxi-Core® High Power Transmission Line Transformers and Baluns

DXE-BAL050-H05-A

Ensure that your antenna system is operating optimally. These units have perfected the unbalanced-to-balanced transition, giving you the strongest signal your antenna is capable of producing in both transmit and receive situations. In addition to increased performance and coverage, these baluns reduce the electrical stress on your expensive equipment.

They cover the 1.8 to 30 MHz frequency range and offer increased operating bandwidth compared to other baluns. The baluns use ceramic insulators, stainless steel hardware and PTFE/silver SO-239 connectors.

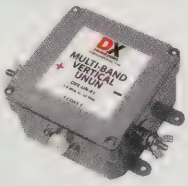
Depending on the application each balun is housed in either a lightweight, formed aluminum enclosure for basic outdoor use or in a cast aluminum gasketed enclosure suitable for extreme environments.

Part Number	Application	Ratio	Power (CW/SSB)	Enclosure	Price
DXE-BAL050-H05-A	Dipole, Yagi	1:1	2/5 kW	Formed Aluminum	$129.99
DXE-BAL050-H10-A	Dipole, Yagi	1:1	5/10 kW	Formed Aluminum	$154.99
DXE-BAL050-H11-C	Dipole, Yagi	1:1	10/10+ kW	Cast Aluminum	$182.99
DXE-BAL100-H11-C	Vertical Loop	2:1	10/10+ kW	Cast Aluminum	$182.99
DXE-BAL200-H10-A	Yagi, LPDA, Horizontal Loop	4:1	5/10 kW	Formed Aluminum	$154.99
DXE-BAL200-H11-C	Yagi, LPDA, Horizontal Loop	4:1	10/10+ kW	Cast Aluminum	$189.99
DXE-BAL300-H10-A	Folded Dipole	6:1	5/10 kW	Formed Aluminum	$182.99
DXE-BAL450-H10-A	450 Ω Antenna	9:1	5/10 kW	Formed Aluminum	$189.99
DXE-BAL600-H10-A	Terminated Loop	12:1	5/10 kW	Formed Aluminum	$189.99
Special Balun Applications for Use with an Antenna Tuner					
DXE-BAL050H10AT	Multi-Band Dipole	1:1	5/10 kW	Formed Aluminum	$139.99
DXE-BAL050H11CT	Multi-Band Dipole	1:1	10/10+ kW	Cast Aluminum	$182.99
DXE-BAL200H10AT	Multi-Band Vertical, Off Center-Fed Dipole	4:1	5/10 kW	Formed Aluminum	$154.99
DXE-BAL200H11CT	Multi-Band Vertical, Off Center-Fed Dipole	4:1	10/10+ kW	Cast Aluminum	$189.99

Universal Wire Antenna kit, center tee and end insulators mount to all DXE baluns.

DXE-UWA-KIT Universal Wire Antenna Balun Mount Kit $23.99

4:1 High Power UNUN for Non-Resonant Vertical Antennas

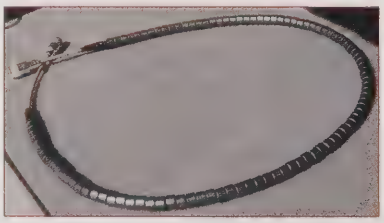


Using non-resonant multi-band antennas? This UNUN helps your antenna system operate at maximum efficiency by minimizing transmission line losses caused by SWR. You can add this UNUN to any 43 foot antenna system; it covers 1.8-30 MHz and can handle 2 kW CW/5 kW SSB.

Mounting and feedpoint connection kits are available separately; or you can purchase everything together for a complete installation package.

DXE-UN-43 High Power 4:1 UNUN $121.99
DXE-UN-BRKT-5A UNUN Mounting Kit $12.99
DXE-TCB-UNFK UNUN to Vertical Feedpoint Connection Kit $7.99
DXE-UN-43-R Complete Package with UNUN, Mounting and Feedpoint Kits $153.97

50 and 75 Ω Choke Baluns



Choke baluns ensure that RF does not flow on the outside shield of feedlines, phasing lines, etc. COMTEK baluns feature 100 Amidon beads on a length of RG-400 PTFE double-shielded silver coax terminated with Silver PTFE PL-259 UHF connectors. Assembled baluns are covered with 3M heat shrink tubing. RF bead kits are available if you wish to assemble your own chokes.

COM-CFC-50 50 Ω Choke Balun, Assembled $119.99
COM-CFC-50K 50 Ω Choke Balun, Kit $79.99
COM-CFC-75 75 Ω Choke Balun, Assembled $123.99
COM-RFB-160 RF Choke Bead Kit, 160M $168.99
COM-RFB-80 RF Choke Bead Kit, 80M $98.99
COM-RFB-40 RF Choke Bead Kit, 40 and 30M $79.99
COM-RFB-20 RF Choke Bead Kit, 20, 10 and 15M $63.99

COMTEK SYSTEMS

Accessories

DXE-RADP-3 Stainless Steel Radial Plate with 20 Bolt Sets $57.99
DXE-SSVC-2P V-Saddle Clamp, Fits 1" to 2" Tube $12.49

Cable Strain Relief Brackets

Mounting your balun or choke is only part of the equation—you still need to make sure your coaxial cables are secure and free from the stress of gravity. Our Cable Strain Relief Brackets will help prevent the cable from pulling from your PL-259 connector.

DXE-CSR8X-1 Cable Strain Relief Assembly, for RG-8X Cable $17.99
DXE-CSR213-1 Cable Strain Relief Assembly, for RG-213/U Cable $17.99

Maxi-Core® Special Line Transformers

If you need a long low loss feedline for your HF antennas, this pair of transformers may be able to save you some money. Instead of running a length of expensive coax, these transformers let you use 450 Ω ladder line as an affordable alternative. Simply run your ladder line and connect a transformer to each end, then connect your 50 Ω coax to each transformer, linking your antenna to your transceiver.

More details on this cost-effective solution can be found at DXEngineering.com.

DXE-BAL450H10-BP Special Line Transformers, Pair $399.98

Maxi-Core® Feedline Current Choke

Fend off RF Interference and reduce the noise level in your 50 Ω coaxially-fed antenna system. It improves your transceiver's efficiency by maximizing the transmit power going to your antenna. In addition to eliminating RFI, this current choke can also overcome a less-than-optimal ground system.

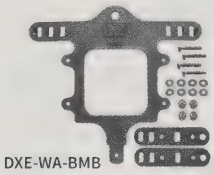
The DXE-FCC0050-H05-A handles 2 kW and is compatible with vertical, Yagi and log periodic antennas. It offers higher common-mode impedance, higher power handling and lower loss than other chokes. The Maxi-Core® Feedline Current Choke covers 160 to 6 meters and is an excellent way to combat poor feedline isolation.

DXE-FCC050-H05-B Feedline Current Choke $113.99

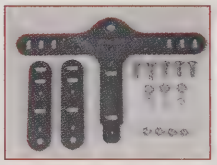
RFI Suppression Beads

DX Engineering has selected the best RFI suppression beads for reducing cable-conducted ignition, fuel injector or other electrical noise in your mobile HF installation. We have observed a 3 S-unit improvement in many cases using these beads. The beads snap around wire or cable, and are useful in your home installation as well. The combo pack has four of the 0.275 inch diameter beads, and two each of the 0.525 inch and 0.750 inch diameter beads.

DXE-CSB31-COMBO RFI Suppression Beads Combo Pack $36.99
DXE-CSB31-275-10 0.275" RFI Suppression Beads, Pack of 10 ..... $29.99
DXE-CSB31-525-5 0.525" RFI Suppression Beads, Pack of 5 ..... $29.99
DXE-CSB31-750-5 0.750" RFI Suppression Beads, Pack of 5 ..... $32.99



DXE-WA-BMB



DXE-UWA-KIT

DXE-BMB-4P

DXE-BMB-1P

Balun Mounting and Installation Solutions

Mounting your balun correctly is critical to maintaining its reliability. Here are several options to ensure your balun is ready to face Mother Nature.

Wire Antenna Balun Mounting Bracket Kit - To ensure proper balun operation, DX Engineering created a mounting kit designed specifically for single-band wire antenna setups. At the heart of each kit is a nearly indestructible mounting bracket made from a UV-resistant poly-resin compound. You'll also get a pair of DX Engineering end insulators, along with all the stainless hardware required for installation.

This bracket is compatible with every COMTEK Balun equipped with two top terminals.

DXE-WA-BMB Wire Antenna Balun Mounting Bracket Kit $23.99

Universal Wire Antenna kit, center tee and end insulators mount to all DXE baluns.

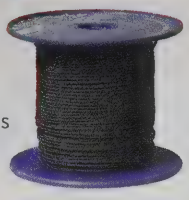
DXE-UWA-KIT Universal Wire Antenna Balun Mount Kit $23.99

Balun Mounting Bracket Kits - Select from several mounting options that match your Yagi boom, tower leg or mast's diameter. Each kit contains the appropriate stainless steel clamps and hardware, plus the aluminum bar mounting bracket. A perfect mounting method for any DX Engineering balun in a formed aluminum enclosure.

DXE-BMB-1P Mounting Kit, with .75" to 1.5" Clamps $24.99
DXE-BMB-2P Mounting Kit, with 1.56" to 2.25" Clamps $24.99
DXE-BMB-3P Mounting Kit, with 2.31" to 3" Clamps $26.99
DXE-BMB-4P Mounting Kit, Made for COMTEK Baluns $17.99

Antenna Support and Guy Line Ropes

MASTRANT ANTENNA GUYING



Specifically designed for guying and support, Mastrant ropes come in several sizes and strength ratings. They're perfect for wire antennas, supporting Yagi booms and elements, as well as guying verticals and antenna masts. These non-conductive ropes are made from synthetic fibers that won't collect moisture or suffer from UV degradation.

All rope comes in a 328 foot/100 meter roll, and popular selections are now available in 100 foot/30 meter rolls. You can choose from two different rope types: the standard Mastrant-P or the stronger Mastrant-M.

Part Number	Type	Diameter	Length	Break Strength	Price
MSG-MP02100	Mastrant-P	2mm/.079"	330' (100M)	220 Lbs.	$18.99
MSG-MP03031	Mastrant-P	3mm/.118"	100' (31M)	440 Lbs.	$9.99
MSG-MP03100	Mastrant-P	3mm/.118"	330' (100M)	440 Lbs.	$25.99
MSG-MP04031	Mastrant-P	4mm/.158"	100' (31M)	882 Lbs.	$14.99
MSG-MP04100	Mastrant-P	4mm/.158"	330' (100M)	882 Lbs.	$38.99
MSG-MP05100	Mastrant-P	5mm/.197"	330' (100M)	1,102 Lbs.	$55.99
MSG-MP06100	Mastrant-P	6mm/.236"	330' (100M)	1,874 Lbs.	$93.99
MSG-MP08100	Mastrant-P	8mm/.315"	330' (100M)	2,866 Lbs.	$115.99
MSG-MP10100	Mastrant-P	10mm/.394"	330' (100M)	4,189 Lbs.	$155.99
MSG-MM02031	Mastrant-M	2mm/.079"	100' (31M)	529 Lbs.	$15.99
MSG-MM02100	Mastrant-M	2mm/.079"	330' (100M)	529 Lbs.	$41.99
MSG-MM03031	Mastrant-M	3mm/.118"	100' (31M)	860 Lbs.	$25.99
MSG-MM03100	Mastrant-M	3mm/.118"	330' (100M)	860 Lbs.	$68.99
MSG-MM04100	Mastrant-M	4mm/.158"	330' (100M)	1,984 Lbs.	$141.99
MSG-MM05100	Mastrant-M	5mm/.197"	330' (100M)	2,535 Lbs.	$220.99
MSG-MM10100	Mastrant-M	10mm/.394"	330' (100M)	8,818 Lbs.	$678.99
MSG-MM12100	Mastrant-M	12mm/.472"	330' (100M)	14,991 Lbs.	$980.99

DXE-MSG2M-C1

DXE-MSG2M-C2

DXE-MSG2M-C3

DXE-MSG3M-C1

DXE-MSG3M-C2

DXE-MSG3M-C3

DXE-MSG2M-BD

DXE-MSG3M-BD

MASTRANT ANTENNA GUYING

Mastrant Guying Hardware Packs

DXE-MSG2-5M-PL

Properly guying your antenna is critical. That's why DX Engineering has worked with Mastrant's recommendations to assemble hardware packs with perfectly-matched components. These kits are tailor-made to work with Mastrant's guying rope, so you can build a safe, reliable guying system for your wire or vertical antenna.

Part Number	Kit Type	For Rope Size	Kit Contents	Price
DXE-MSG2M-C1	Coupling Kit	2mm	2 Pack of Shackles, Thimbles, Duplex Clips	$12.99
DXE-MSG2M-C2	Coupling Kit	2mm	2 Pack of Carabiners, Thimbles, Duplex Clips	$11.99
DXE-MSG2M-C3	Coupling Kit	2mm	2 Pack of Quick Links, Thimbles, Duplex Clips	$12.99
DXE-MSG3M-C1	Coupling Kit	3mm	2 Pack of Shackles, Thimbles, Duplex Clips	$13.99
DXE-MSG3M-C2	Coupling Kit	3mm	2 Pack of Carabiners, Thimbles, Duplex Clips	$12.99
DXE-MSG3M-C3	Coupling Kit	3mm	2 Pack of Quick Links, Thimbles, Duplex Clips	$14.99
DXE-MSG1-3M-T1	Tensioning Kit	1-3mm	2 Pack of Quick Links and Tensioners	$11.99
DXE-MSG2M-BD	Bull Dog Grips	2mm	4 Pack of Bull Dog Grips	$11.99
DXE-MSG3M-BD	Bull Dog Grips	3mm	4 Pack of Bull Dog Grips	$12.99
DXE-MSG2-5M-PL	Pulleys	2-5mm	4 Pack of Galvanized Steel Pulleys	$13.99
DXE-MSG4-9M-SPL	Pulleys	4-9mm	2 Pack of Stainless Steel Pulleys	$27.99

DX ENGINEERING

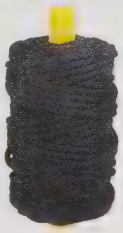
Glass Antenna Insulators

Operators have relied on glass insulators since the dawn of radio because they're a proven and effective way to improve the efficiency of your wire antenna—regardless of its configuration. DX Engineering's new Glass Antenna Insulators have an antique look, yet handle a significant amount of stress without breaking, making them well-suited to most wire antenna and support rope applications.

DXE-TGI-2 Glass Antenna Insulators, Pair $15.99

Antenna Support Rope

STI



Synthetic Textile Industries' double-braided Dacron/Polyester ropes are not weakened by decay or mildew, and provide excellent resistance to abrasion. The color-sealed, black polyester yarn used in the braided jacket also protects the cord from degradation caused by ultraviolet light. It is available in a variety of diameters and lengths.

Part Number	Diameter	Break Strength	Length	Price
SYN-DBR-94-100	3/32"	260 Lbs.	100'	$11.99
SYN-DBR-94-1000	3/32"	260 Lbs.	1,000'	$69.99
SYN-DBR-125-100	1/8"	420 Lbs.	100'	$14.25
SYN-DBR-125-1000	1/8"	420 Lbs.	1,000'	$99.99
SYN-DBR-187-100	3/16"	770 Lbs.	100'	$19.25
SYN-DBR-187-350	3/16"	770 Lbs.	350'	$54.99
SYN-DBR-187-500	3/16"	770 Lbs.	500'	$74.99
SYN-DBR-187-1000	3/16"	770 Lbs.	1,000'	$136.99
SYN-DBR-312-100	5/16"	1,790 Lbs.	100'	$26.99
SYN-DBR-312-500	5/16"	1,790 Lbs.	500'	$115.99
SYN-DBR-437-500	7/16"	2,150 Lbs.	500'	$235.99

DXE-LL300

DX ENGINEERING

300 and 450 Ω Ladder Line

DXE-LLC-1P

DX Engineering's 300 and 450 Ω Ladder Line is rated for full legal transmit power. The 300 Ω ladder line is constructed of 18-gauge conductors with 19 strands of copper clad steel wire, resulting in a velocity factor of 0.88. It is ideal for use with multi-band dipoles or other multi-band antennas.

The 450 Ω ladder line is constructed of 16-gauge conductors with 19 strands of copper clad steel wire. It is ideal for use with our Reversible Beverage Antenna system, DXE-RBS-1P. The wire makes the line strong enough for long horizontal runs between supports. Actual impedance is a nominal 400 Ω with a nominal velocity factor of 91%.

DXE-LL300-1C 300 Ω Ladder Line, 100' $48.99
DXE-LL300-2C 300 Ω Ladder Line, 200' $98.99
DXE-LL300-3C 300 Ω Ladder Line, 300' $134.99
DXE-LL300-4C 300 Ω Ladder Line, 400' $189.99
DXE-LL300-5C 300 Ω Ladder Line, 500' $184.99
DXE-LL450-5C 450 Ω Ladder Line, 500' Spool $279.99
DXE-LL450-CTL 450 Ω Ladder Line ..... per foot $0.65
DXE-LL450-1K 450 Ω Ladder Line, 1,000' Spool $529.99
DXE-LL-INS Ladder Line Supports for 450 Ω line, 25 Per Pack $13.99
DXE-LLC-1P Ladder Line Coupler for 450 and 300 Ω Ladder Line $8.99

Center Insulator for Multi-Band Doublets with SO-239

hy-gain

This weatherproof, lightweight, high strength center insulator is used for connecting coaxial feedline to a doublet-type antenna. The insulator can be hung from a supporting mast. It has an SO-239 connector to attach to coaxial cable with a matching PL-259 connector.

HGN-C-1C Center Insulator for Multi-Band Doublets $29.95

Wire Antenna Hanging Tools

EZ HANG Antenna Launcher & Cable Installer

EZH-EZHSSK1

No more ladders, no more climbing trees—these durable wire antenna launching tools make it easy for you to hang your antenna from the safety of terra firma. In addition to heavy lead weights, they use tennis ball weights; so you won't damage anything if your aim is a bit off.

The Square Shot has a 300 foot spool of 10-pound-test line, an EZ winder with 500 feet of 155-pound-test line, and an easy hang custom band set. The Hyper Shot takes everything included with the Square Shot, and dials up enough power to clear trees up to 100 feet high! Make sure to check local laws regarding slingshots before you pull back the band on an EZ Hang kit.

EZH-EZHSSK1 Square Shot Kit $99.99
EZH-HEZ21 Hyper Shot Kit $104.99

DX ENGINEERING

NVIS Antenna Kit

DX Engineering now makes it easier than ever to use NVIS (Near Vertical Incidence Skywave) techniques for emergency and recreational purposes. Used for decades in military applications and for in-state disaster communications, the ionospheric NVIS mode works at frequencies from 2 MHz to 10 MHz. Sturdy and easy to deploy, the DXE-NVIS-8040 kit is great for camping, QRP, ARES®, EMCOMM, SPOTA, and any use where short range HF operation from 80 to 40 meters is preferred. The kit comes with a crossed dipole antenna capable of handling 1,500 watts. The antenna's stranded wires are 14 AWG. The support rope size is 5/16". The antenna weighs in at 25 lbs., perfect for taking on the road. Guying is provided by the antenna's four legs.

The kit also includes a 15', 4-section telescopic fiberglass mast collapsible to 6' (DXE-NVIS-MAST); antenna stakes; and complete balun mounting kit (DXE-NVIS-BMB), featuring all-in-one bracket, DX Engineering end insulators, and stainless steel hardware. A COMTEK COM-BAL-11150T balun is included.

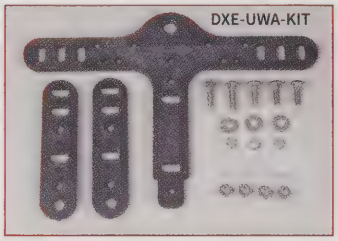
DXE-NVIS-8040 Wire Antenna, 15' Mast, Balun Mounting Kit **$363.64**

NVIS Short Dipole-New

This NVIS wire antenna kit features everything included with the DXE-NVIS-8040 but with loading coils to make the 80 meter dipole legs the same length as the 40 meter dipole legs.

DXE-NVIS-8040S NVIS Short Dipole Kit **$430.64**

DX ENGINEERING



Universal Wire Antenna Kits

Our Universal Wire Antenna (UWA) Kits contain parts to build several antenna types, like single band, multi-band, multi-frequency and folded dipole, doublet and inverted-vee, Windom, off-center fed, Zepp, long wires, rhombic, vee beam and loop antennas.

The kits feature the new EZ-BUILD™ Center-T insulator and end insulators. The insulators' patented design features a serpentine wire grip for insulated DX Engineering Antenna Wire and DX Engineering's high strength, high power 300 Ω ladder line. The serpentine wire connection grip is strong enough to support the antenna wires without looping or wrapping the wire ends. This allows fast and easy field antenna length adjustments without soldering.

The insulators are made of a lightweight, high strength, UV-protected material. The center-T insulator is designed to serve as a feedpoint and strain relief for antennas made with either wire or ladder line, which may be fed with either ladder line or coaxial cable. The center-T insulator can be the main support point for the antenna feedpoint by using the top center hole to attach a support rope. **DXE-UWA-KIT also serves as the mounting and support point for any DX Engineering Balun.**

The DXE-UWA8X-KIT and DXE-UWA213-KIT kits include a new strain relief bracket and P-clamps with neoprene cushions that grip the coaxial cable without deforming it, taking the weight of the hanging cable off of the connector. Each kit also includes crimp-on ring terminals for ladder line and antenna wire, and connection hardware.

DXE-UWA-KIT Universal Wire Antenna Kit **$23.99**
DXE-UWA8X-KIT Universal Wire Antenna Kit for RG-8X **$47.99**
DXE-UWA213-KIT Universal Wire Antenna Kit for RG-213 ..... **$47.99**
DXE-UWA-END-KIT End Insulators, Package of 8 ..... **$11.99**

BUCKMASTER

Multi-Band Off-Center Fed Dipole HF Antennas

BMT-DX-OCF

Buckmaster OCF Multi-Band HF Antennas offer exceptional performance with anvil-like reliability. The efficient off-center fed dipole design, and high-quality components, deliver years of trouble-free operating.

The permanently sealed center insulator houses either a 300 or 3,000 watt potted balun, secured by a 1/4 inch stainless steel eyebolt. Each antenna fully assembled. DX Engineering carries the support rope and coaxial cable you need to complete your installation.

Part Number	Bands	Wire Length	Power Rating (watts)	Price
BMT-DX-OCF-40	40, 20, 10 & 6 Meters	68'	300	$236.99
BMT-DX-OCF	75/80, 40, 20, 17, 12, 10 & 6 Meters	135'	300	$241.99
BMT-DX-OCF-160	160, 75/80, 40, 20, 17, 12, 10 & 6 Meters	270'	300	$317.99
BMT-DX-OCF-HP40	40, 20, 10 & 6 Meters	68'	3,000	$342.99
BMT-DX-OCF-HP	75/80, 40, 20, 17, 12, 10 & 6 Meters	135'	3,000	$349.99
BMT-DX-OCF-HP160	160, 75/80, 40, 20, 17, 12, 10 & 6 Meters	270'	3,000	$422.99

DXE-WA-070

DXE-WA-260
(shown as built, sold as a kit.)

DX ENGINEERING

Ladder-Line Fed Dipole Antennas

The DX Engineering multi-band dipoles are rugged yet lightweight. Each model resonates at the low end of the band specified. They are usable to 30 MHz with a wide range tuner and come complete with the wire elements, ladder feedline, center-T support and end insulators.

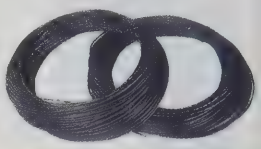
- Elements: 14 AWG copper, PVC jacket for flexibility and strength
- Feedline: 100 feet, 18 AWG, 300 Ω ladder line, UV-resistant, 0.88 VF
- Hardware: stainless steel
- Center-T support and end insulators: High impact, UV-resistant material, black
- Power Rating: 1,500 W

DXE-WA-260 Antenna, 260' Long for 160M and Up **$69.99**
DXE-WA-135 Antenna, 135' Long for 80M and Up **$59.99**
DXE-WA-070 Antenna, 70' Long for 40M and Up **$59.99**

Premium Copper #14 Insulated Antenna Wire

Use DX Engineering #14 Insulated Antenna Wire to achieve top performance and long-life, trouble-free operation. This insulated copper wire is UV-resistant and lays out easily, unlike the wire that is commonly available at the "big box" stores which coils and kinks. It will last much longer in contact with the environment than bare wire. It is available in pre-cut lengths for easy dipole assembly, or in bulk lengths of 500 and 1,000 feet.

DXE-ANTW-75 40M & Up, 75' **$11.99**
DXE-ANTW-150 80M & Up, 150' **$23.99**
DXE-ANTW-300 160M & Up, 300' **$47.99**
DXE-ANTW-500 Multiple Antennas, 500' **$85.99**
DXE-ANTW-1000 Multiple Antennas, 1,000' **$158.99**



DMN-W735

DIAMOND ANTENNA

DMN-W8010

Wire Dipole Antennas

Complete kits that get you on the HF bands quickly. They include an SO-239 connector for easy hookup, a center insulator and all necessary wire/cable. You don't need a tuner with these antennas, though some trimming may be required to improve SWR. They handle 1,200 watts.

The W735 Wire Dipole Antenna provides 80 and 40 meter coverage with an 85 foot cable. The W8010 gives you the 80, 40, 20, 15 and 10 meter bands with a 63 foot cable.

DMN-W735 Dual-Band Wire Dipole Antenna **$119.99**
DMN-W8010 Five-Band Wire Dipole Antenna **$144.99**

Multi-Band Wire Antennas

Since they use multiple parallel wires arranged in a fan-style design, EAntenna calls these antennas "multi-fan" dipoles. The antennas' unique design allows each band dipole to remain separate from the others, which means you can pack multiple wire antennas in the space typically required for one. Each antenna listed below handles full legal limit power.

Part Number	Bands	Wire Length	Price
EAN-R2010049	80, 40M	88.51'	$135.99
EAN-R2010048	80, 40, 20, 15, 10M	88.51'	$175.99
EAN-R2010046	40, 20, 15, 10M	42.31'	$149.99

Horizon Multi-Band Wire Antennas

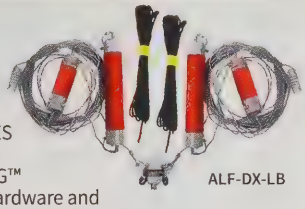
Bushcomm HF Antenna Systems

Designed for simple, efficient operation on multiple HF bands, these antennas use a relativity short length of wire to allow for a compact installation. Though these deliver good bandwidth right out of the box, Bushcomm recommends the use of a separate tuner to achieve maximum performance. Stainless steel wire is used for corrosion resistance. These antennas handle 200 watts on SSB. For the Center-Fed models, you can support either end for a traditional layout, but they work very well in an inverted V setup too.

Part Number	Bands	Length	Bandwidth at 40M	Design	Price
BCM-HORIZON-2040	20, 40M	43'	150 kHz	Center Fed	$135.99
BCM-HORIZON-4080	40, 80M	79'	150 kHz	Center Fed	$155.99
BCM-HORIZON-3B	10, 20, 40M	40'	100 kHz	End Fed	$175.99

ALPHA DELTA COMMUNICATIONS, INC.

Multi-Band Dipole Wire Antennas

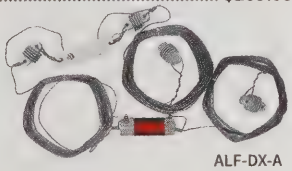


ALF-DX-LB

Alpha Delta's complete resonant antennas include a DELTA-C center insulator and end insulators, ISO-RES coils and separate wires for different bands. All wires are attached to the center insulator. An SEP ARC-PLUG™ static electricity protector is built in. Stainless steel hardware and 12-gauge solid copper wire ensure long life. Antennas are shipped fully assembled. No antenna tuners are necessary, except for 15 meter band with DX-CC.

ALF-DX-CC	80-10 Meter Parallel Dipole, 82'	$179.99
ALF-DX-DD	80-40 Meter Single Dipole, 82'	$149.99
ALF-DX-EE	40-10 Meter Parallel Dipole, 40'	$159.99
ALF-DX-LB	160-80-40 Meter Single Wire Dipole, 100'	$179.99
ALF-DX-LBPLUS	160-10 Meter Parallel Dipole, 100'	$209.99

Multi-Band Sloper Wire Antennas



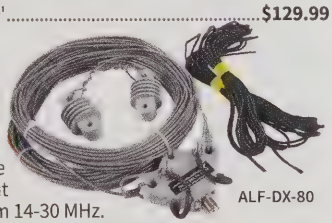
ALF-DX-A

These antennas provide good DX performance for limited space installations by combining the DX firepower of a quarter-wave sloper with the wide bandwidth of a half-wave dipole antenna. A built-in SEP ARC-PLUG™ static electricity protector is included. Because the installation of sloper antennas depends on your available mounting circumstances, the use of a wide range antenna tuner is recommended for best performance.

ALF-DX-A	Twin Sloper, 160/80/40 Meter, 127'	$119.99
ALF-DX-B	Sloper, 160/80/40/30 Meter, 60'	$129.99

ALPHA DELTA COMMUNICATIONS, INC.

Single Band Full Size Dipole Antennas



ALF-DX-80

To get on the 80, 40 and 20 meter bands quickly, look to these antennas from Alpha Delta. They're pre-tuned for the lowest indicated frequency, but you can trim them to tune for any frequency from 14-30 MHz. They come fully assembled and include a Delta-C center insulator with built-in SEP ARC-PLUG™ static electricity protector, high strength copper wire and stainless steel hardware. They will easily handle full legal power.

ALF-DX-80	Single Band Full Size Dipole, 80M, 134'	$79.99
ALF-DX-40	Single Band Full Size Dipole, 40M, 67'	$79.99
ALF-DX-20	Single Band Full Size Dipole, 20M, 34'	$79.99

SWL Antennas

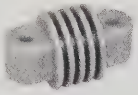
ALF-SEP

Fully assembled for fast, easy installation, these antennas are optimized to provide the best broadband receiving performance from the AM broadcast band through 30 MHz. The antennas include ISO-RES inductors, solid copper wire elements and the exclusive DELTA-C center insulator with a built-in SEP ARC-PLUG™ static electricity protector. Stainless steel hardware and 12-gauge solid copper wire ensure long life

ALF-DX-SWL	SWL Sloper Antenna, 60'	$139.99
ALF-DX-ULTRA	SWL Parallel Dipole, 80'	$179.99
ALF-SEP	Replacement ARC-PLUG Protector	$15.99

Antenna Insulator Kit with Static Discharge

ALF-DELTA-C



ALF-DELTA-CIN

This kit contains one center insulator, antenna connection hardware, one ARC-PLUG static electricity protector and two end insulators. The antenna hardware is molded of Deltalloy™, an extremely tough and durable plastic specifically blended to withstand sunlight and extreme weather conditions. An SO-239 connector is provided for direct connection to your coaxial cable. A ladder line balanced feedline may be connected directly to the dipole wire ends.

ALF-DELTA-C	Antenna Insulator Kit	$29.99
ALF-DELTA-CIN	Replacement End Insulator	$2.99

SWE Series Broadband End-Fed Antennas

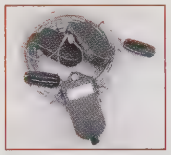
Bushcomm HF Antenna Systems

Very similar to SWC Series Dipoles, Bushcomm's Broadband End-Fed Antennas are available either as a base station antenna, or bundled with a quick deployment kit suitable for portable and EMCOMM operation. The deployment kits include a grounding clamp, RG58 coaxial cable, ground stake, nylon cord, throw weight, and snap hooks.

Each 89 foot (79' wire, 10' ground) antenna covers 80-10M and, depending on the radio, doesn't require a tuner. The antennas come with a balun. SWE-100P also includes a handy winder tool that makes antenna deployment and storage easy.

Part Number	Antenna Wire Type	Deployment Kit	Price
BCM-SWE-100	7-Strand	Antenna Only	$339.99
BCM-SWE-100P	49-Strand "Soft Stainless"	Yes, with Winder	$319.99

Bushcomm HF Antenna Systems



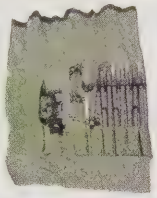
BCM-SWC-100C

SWC Series Broadband Dipole Antennas

Perfect when you need HF coverage without a lot of hassle, these Broadband Dipoles are built with stainless steel antenna wires and hardware for excellent outdoor durability. These antennas are typically under 2.5:1 SWR across their range. A tuner may be required on some frequencies.

Part Number	Bands	Coverage	Power	Length	Price
BCM-SWC-100C	9	80-10M	125 W PEP	157'	$429.99
BCM-SWC-100CE	9	80-10M	250 W PEP	197'	$479.99
BCM-SWC-100S	8	60-10M	125 W PEP	112'	$329.99
BCM-SWC-100E	9	80-10M	125 W PEP	197'	$419.99

Portable Mast Kit



Get your temporary wire antenna up in the air quickly. This kit consists of a roughly 16' mast, broken in down into eight compact sections. The mast is held together with rugged cord, and can be easily guyed with the included stakes and guy line. The whole kit comes bundled in a durable field bag.

BCM-BU00012	Portable Mast Kit	$589.99

G5RV All-Band HF Antenna

MFJ

MFJ-1778

The world-famous G5RV antenna is a multi-band center-fed dipole with a 1,500 watt capacity. Designed as a 3/2-wavelength antenna for 14 MHz, it provides reasonable performance on many other bands. The antenna covers all bands from 160 to 10 meters when used with an antenna tuner. At 102 feet long, the G5RV is shorter than an 80 meter dipole. At 52 feet long, the MFJ-1778M Junior G5RV Antenna is half the size of the MFJ-1778 yet still covers 40 through 10 meters with tuner. It also handles 1,500 watts.

MFJ-1778	G5RV All-Band HF Antenna	$49.95
MFJ-1778M	G5RV Junior Antenna	$44.95

OCFD 40/20/10/6 Meter Dipoles

CAD designed and engineered for low SWR, high efficiency, wide bandwidth and frequency agility on all four of Amateur Radio's most interesting DX bands. Cut to length and preassembled; just connect your feedline. They're lightweight and easy to install.

MFJ-2010	OCFD UltraLite Dipole, 300 Watts	$59.95
MFJ-2012	OCFD PowerLite Dipole, 1.5 kW	$79.95

Dipole Antennas

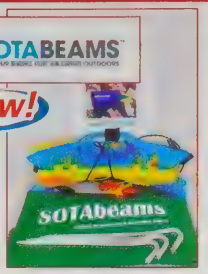
Choose a Dipole Antenna from MFJ, and get effective yet reliable coverage in an antenna that's easy to use. Check out MFJ's lineup and select the dipole antenna that best suits your needs, and you can always visit DXEngineering.com for more specs.

Part Number	Band(s)	Tuner Required?	Notes	Wire Length	Price
Multi-Band Dipoles					
MFJ-1779B	80/40M	No	Trim to Length	142'	$49.95
MFJ-2014	75/40M	No	Power-Lite	122'	$99.95
MFJ-17754	40/20M	No	Dual-Band	42'	$59.95
MFJ-1779C	20-6M	No	Trim to Length	35'	$29.95
Portable Dipole with Telescopic Whips					
MFJ-2299	20-6M	No	FM Broadcast	34' Max.	$129.95

Orders by 10 pm ET ship the same day. See pg. 76 for details.

SOTABeams Wire Antenna Kits

DX Engineering is excited to now offer SOTABeams' lineup of quality portable wire antennas, including its Band Hopper Multi-Band Dipoles, Half-Wave End-Fed Antennas, and Bandspringer Midi HF Antenna. All SOTABeams antenna kits are built for fast, easy deployment and excellent performance wherever you operate.



SBM-BANDHOPPER4

Band Hopper Multi-Band Portable Dipole Antennas

These lightweight, pre-assembled, resonant multi-band dipole antennas are designed for the lightweight portable specialist. With a high-efficiency, full-size, half-wave dipole on each band, operators can receive and transmit strong signals anywhere they go. The kit comes with RG174 feedline; BNC connector; ferrite core, current balun; three wire winders; tent stakes; 33' of back guy rope; and storage bag. These antennas are rated to 125W. Quick band selection is made possible with provided alligator clip jumpers.

SBM-BANDHOPPER4	80/40/30/20 Meter Portable Dipole	**$119.99**
SBM-HOPPER604020	60/40/20 Meter Portable Dipole	**$101.99**
SBM-HOPPER403020	40/30/20 Meter Portable Dipole	**$101.99**
SBM-HOPPER201715	20/17/15 Meter Portable Dipole	**$99.99**
SBM-HOPPER4020	40/20 Meter Portable Dipole	**$89.99**

Half-Wave End-Fed Portable Antennas

Ideal for QRP and HF operation on the move, these 20M and 40M monoband antenna kits include wire winder, counterpoise for easy tuning, two pegs and antenna bag. The pre-assembled antennas have a 20W power rating.

SBM-HALFWAVE-40M	40M Half-Wave End-Fed Antenna, 66', 7 MHz	**$45.99**
SBM-HALFWAVE-20M	20M Half-Wave End-Fed Antenna, 33', 14 MHz	**$42.99**

Bandspringer Midi HF Portable Antenna

This is a pre-assembled, lightweight random-length wire antenna with counterpoise designed for excellent transmitting and receiving performance on the 60/40/30/20/17/15/12/10 meter bands. It comes with two wire winders, two aluminum tent stakes, three insulators, two cable ties, 4mm to BNC adapter, and nylon carrying bag. Wire elements are made of high-quality PVC-insulated stranded wire. Requires the use of an antenna tuner, not included.

SBM-SPRINGERMIDI	60/40/30/20/17/15/12/10M Midi HF Antenna, 42'	**$45.99**

Portable Antenna Poles

The Tactical TAC7000HDS is a heavy-duty fiberglass telescopic mast that's built tough for serious outdoor operators. The 23' mast collapses to 23" for easy transport, and the heavy-gauge pole sections combine strength, stiffness and proper weight for demanding applications. Other features include built-in base shock absorber and hollow top section for easy wire feeding. It makes a good complement to SOTABeams' Band Hopper antennas. The super-light MINI Telescopic Fiberglass Pole extends to 13' 6" with a closed length of only 20". Great for portable operations—especially cycling. Both poles include carrying bag.

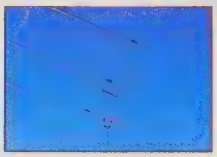
SBM-TAC7000HDS	Heavy-Duty Portable Antenna Mast, 23' extended, 23" collapsed	**$105.99**
SBM-MINI-POLES	MINI Telescopic Fiberglass Pole, 13' 6" extended, 20" collapsed	**$39.99**

BA Series Monoband Dipole Antennas

Made with high-strength braided stainless steel wire, these monoband dipoles are rugged and durable. Mounted in an inverted V configuration, their footprint is relatively compact—a great solution for portable and small-space setups. Each comes with a balun and enough nylon rope to complete the installation. The antennas handle 150 watts.

BCM-BA-40B	BA Series Monoband Dipole Antenna, 40 Meters	**$185.99**
BCM-BA-80B	BA Series Monoband Dipole Antenna, 80 Meters	**$209.99**

Multi-Wire Broadband Dipole Antennas



As Bushcomm's flagship models, these Multi-Wire Dipoles offer an extraordinary blend of performance, reliability, and ease of use. Installed at 65', you can expect gain up to 5 dBi. The antennas handle 60 watts (cont.) and 130 watts (PEP), and will withstand winds up to 130 mph. These are highly efficient antennas that can suit a wide range of installation setups. Depending on the radio, these antennas won't require a tuner.

Bushcomm also makes a potent two-wire folded dipole as a compact alternative to larger models, suitable for portable and EMCOMM stations. The FD-100 handles 125 watts and delivers an SWR better that 2.5:1.

BCM-BU00934	9-Band Multi-Wire Dipole, 89', 80-10 Meters	**$459.99**
BCM-BU00585	10-Band Multi-Wire Dipole, 177', 160-10 Meters	**$729.99**
BCM-FD-100	9-Band Two-Wire Folded Dipole, 88.5', 80-10 Meters	**$399.99**

FD-600 Wideband Folded Dipole Antenna

This compact and lightweight two-wire folded dipole antenna provides Hams with another superb option along with Bushcomm's best-selling three-wire broadband model (BBA-100). Covering 2-30 MHz, the FD-600 boasts 600 watts PEP; an SWR of better than 2.5:1 (typically 1.5-1.6:1); less winding load than the three-wire models; UV-resistant spacer rods and balun; and stainless steel wires and fittings. All this with no tuning required!

BCM-FD-600	FD-600 Wideband Folded Dipole Antenna	**$719.99**

F-Loop and P-Loop 2.0 Antennas

CHA-F-LOOP-2-0

Chameleon took its popular F- and P-Loop antennas and made them lighter, stronger, and more rugged. They retain a compact 3' diameter, and boast the same performance and versatility. These made-in-the-USA HF loops can be set up and installed in under three minutes, and are very easy to tune. They work equally well at home, or in a base or portable setup. A handy travel bag is included.

The radiator consists of 12' of RG-58A coaxial cable with a built-in choke to suppress RFI. The "Plus" edition of the F-loop antenna features rugged, rigid aluminum radiator sections instead of coaxial cable.

For directional performance, Chameleon makes a handy portable Remote Tuner and Rotator package. It has removable tripod legs and can be set up in about 15 minutes. The system includes a remote control and 20 feet of control wire. Powered by a 9 volt battery, the package gives you the power to easily peak or null out signals.

CHA-F-LOOP-2-0	F-Loop 2.0 Portable Antenna, 80-10M	**$399.99**
CHA-FLOOP-PLUS20	F-Loop 2.0 Plus Portable Antenna, 80-10M	**$494.99**
CHA-RT-RR	Remote Tuner/Rotator for F-Loop 2.0 Plus	**$268.99**
CHA-P-LOOP-2-0	P-Loop Portable Antenna, 40-10M	**$494.99**

EMCOMM II Portable HF Antenna

Tailor-made for first-responders, this rugged 60' wire antenna delivers excellent 160-6M coverage. Add your external tuner and it makes a great backup or portable HF antenna for your station. It handles 500 watts PEP. The antenna comes with 60' of antenna wire and a waterproof matching box.

CHA-EMCOMM-II	EMCOMM II Portable HF Antenna	**$125.00**

EMCOMM-III Portable HF Antennas

If you're looking for a great antenna for outdoor adventures and emergency communications, take a good look at Chameleon's EMCOMM-III Portable HF Antennas. Designed for short- to long-range portable and man-pack HF communications, EMCOMM-III antennas are a practical and high-performing solution whether backpacking, hiking or camping. They're also a good choice for military, Civil Air Patrol, ARES, RACES and other applications. They can be configured for NVIS communication and will support most Automatic Link Establishment (ALE), frequency-hopping, and spread-spectrum modes and operations. The 160-10M version comes with matching transformer, a 73' copper-clad KEVLAR PTFE antenna wire on a line winder, and a 25' counterpoise. The 80-10M version comes with matching transformer and 130' of wire. They can be deployed in the field in less than 15 minutes, using almost any available support, with no masts or guying required. An antenna tuner or coupler may be required.

CHA-EMCOMM-III-B	80-10M 130' Base Antenna, 500W SSB or 250W CW	**$149.00**
CHA-EMCOMM-III-P	160-10M Portable Antenna, 100W SSB or 50W CW	**$139.00**

MPAS Portable HF Antenna

Consisting of a portable base, 60' of wire, a 10' collapsible whip and a clamp-style mount, the MPAS is one of the most versatile and portable HF antennas on the planet. It covers HF and 6 meters, and requires no adjustment when used with a wide range antenna tuner. It can also be configured for NVIS operation. The MPAS handles up to 100 watts (SSB). The MPAS is the ideal antenna for the camper, EMCOMM operator, or portable enthusiast who needs full HF coverage without lugging a ton of gear.

CHA-MPAS	MPAS Portable HF Antenna	**$314.99**

NVIS HF Antenna Base and Elements

Maximize the capabilities of your HF mobile by tuning quickly across the bands (including MARS and CAP frequencies). The base has a built-in broadband 5:1 impedance matching transformer to facilitate efficient tuning.

The base can be configured as an end-fed stationary antenna with the 30' of supplied wire or converted to a mobile installation using one of the separate elements sold below. As a wire antenna, it covers 160-6 meters and can handle 800 W SSB/250 W CW. Mobile coverage is 80-10M. The base is waterproof and has a 3/8"-24 mount.

CHA-HYBRID	NVIS HF Antenna Base	**$209.99**

Delta Diamond 60 HF Wire Loop Antenna

Looking to fit a big wire antenna into a small space? Measuring an impressive 197', Bushcomm's Delta Diamond 60 HF Loop Antenna fits the bill. The antenna works well in a 50' x 50' perimeter area, or it can be deployed in a variety of shapes to fit your own lot area and directional demands. The antenna comes with four mounting insulators, matching broadband balun and load set to suit 2-30 MHz 125 W PEP, and wire grips and 8mm nut driver for making final length adjustments.

BCM-BU01332	Delta Diamond 60 HF Wire Loop Antenna	**$459.99**

Ciro Mazzoni Radiocomunicazioni

MZZ-MIDI MZZ-BABY

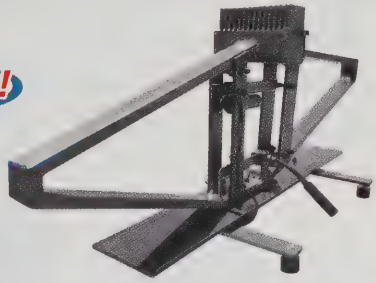
Automatic Magnetic Loop Antennas

Own a stealthy loop antenna that can really handle the power. The engineers at Italy's Ciro Mazzoni put more than 40 years of communications knowhow behind its popular BABY Loop (6.6-29.8 MHz) and MIDI Loop (3.5-14.5 MHz) antennas—and it shows. They're compact, quiet, easy-to-install and ideal when you're dealing with limited space but still want higher-power handling compared to other transmitting loops. Perfect for stealth HOA, these solidly constructed aluminum antennas can automatically tune to resonate throughout a wide band range: 80 through 20 meters for the MIDI Loop, 40 through 10 meters with the BABY, without any coverage gap. For complete details, enter "MZZ Loop" at DXEngineering.com.

MZZ-BABY Loop Antenna, 6.6-29.8 MHz, 39.8" Diameter **$2,097.99**
MZZ-MIDI Loop Antenna, 3.5-14.5 MHz, 78.7" Diameter **$2,479.99**

Ciro Mazzoni Radiocomunicazioni

New!



Stealth Loop Antenna

From the loop antenna experts at Italy's Ciro Mazzoni comes the new low-profile Stealth Loop Antenna by I3VHF. Premiered at Dayton Hamvention 2018 and now available from DX Engineering, the 6.6-29.8 MHz continuous coverage Stealth Loop measures only 54" x 19.6" x 10.2", making it ideal for keeping out of sight while letting you work the 40 to 10 meter bands. Made from strong, powdercoated aluminum alloy, the antenna features a typical SWR of 1.3:1; 6dB front to back ratio; 25dB front to side ratio; 50 Ω input impedance; and 125 watt power rating. It also includes an auto-tuning radio interface. Weighing 15.4 pounds (without mounting brackets), the Stealth Loop is an antenna built for high performance, without drawing the attention of your neighbors or HOA.

MZZ-STEALTH 6.6-29.8 MHz Loop Antenna **$1,799.99**

MOONRAKER

Telescoping Whizz Whip Antenna

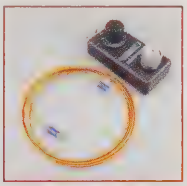
Give yourself the freedom of Moonraker's Whizz Whip Antenna—a completely self-contained, all-band 51" telescoping antenna that mounts right to your radio for super-convenient transmitting and receiving. Free your rig from coax cables, mounts, tripods, masts and trees, and enjoy remarkable performance from desktop to picnic table, with no ground required. It's the only HF portable antenna that not only operates VHF and UHF, but does so with gain. Transmits from 3.5 to 450 MHz. Take your rig anywhere you want to go and operate your QRP HF/VHF/UHF portable transceiver across the spectrum.

MKR-13-425 Telescoping Whizz Whip Antenna **$129.99**

Whizz Loop Antennas

Compact and portable QRP Whizz Loop Antennas are perfect for attaching directly to your ft-817 or other QRP transceiver. Tuning is easily achieved with their built-in tuning circuit. Choose from 20-6M and 40-10M models.

MKR-13-427 Whizz Loop, 20-6M, 15.75" Diam. **$92.99**
MKR-13-428 Whizz Loop, 40-10M, 15.75" Diam. **$104.99**


MKR-13-427

Horizon Loop Antennas

Bushcomm HF Antenna Systems

Capitalizing on the popularity of HF magnetic loops, Bushcomm's two new Horizon Loops are a great solution for HF operation in a limited space. Whereas many popular magnetic loop models are receive only, these antennas actually allow tight-band transmit capability. Reception is characteristically quiet and transmission is remarkably efficient. They feature a durable, yet lightweight, aluminum loop and come with installation hardware. Horizon Loops handle 125 watts PEP.

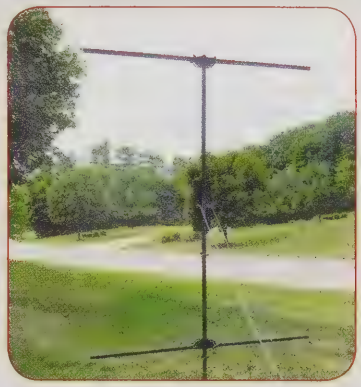
BCM-LOOP-20

BCM-LOOP-20 Horizon Loop, 20-10M, 29" OD **$325.99**
BCM-LOOP-40 Horizon Loop, 40-10M, 54" OD **$355.99**

DXE-TW-2010-P

DXE-TW-4040-P

DX ENGINEERING



TransWorld Antenna Packages

If you enjoy portable HF operation, but don't enjoy lugging around a massive antenna, you should check out the TransWorld Antenna line. These antennas are small and portable, yet boast exceptional performance and durability. TransWorld Antennas are now DX Engineering products, so they're built to the same precision standards that made TransWorld Antenna a household name for HF enthusiasts.

The DX Engineering TransWorld Antenna is essentially a basic structure consisting of top, bottom and tee sections with interchangeable Array Box Center Sections that you can purchase separately for the other bands you want. There are a ton of options; to make selecting the right antenna setup easier, we've created these handy packages.

5-Band Explorer

This combo delivers excellent 20, 17, 15, 12 and 10 meter coverage with manual bandswitching. It includes a portable Quadrastand, basic antenna structure, and a handy travel bag.

DXE-TW-2010L-P 5-Band Explorer Package **$624.96**

5-Band Adventurer

Similar to the 5-Band Explorer with the addition of automatic bandswitching. The travel bag is available separately.

DXE-TW-2010-P 5-Band Adventurer Package **$694.96**

Band-Specific Solo Explorer

This monoband antenna system gives you an impressive presence on the 40 meter band. It's an extremely portable package, and comes with quadrastand and basic antenna structure components. Solo Explorers are available for the 80, 60, 40 and 30 meter bands; visit DXEngineering.com to see all the HF options.

DXE-TW-4040-P 40 Meter Solo Explorer Package **$544.96**

5-Band Globetrotter

Though it's a great portable antenna, the TransWorld Antenna is actually perfect for stealthy home installation too, when paired with the TransWorld Permanent Mounting Pole that's included in this package. Like the 5-Band Adventurer, the Globetrotter features 20-10M coverage with automatic bandswitching.

DXE-TW-2010P-P 5-Band Globetrotter **$629.96**

Band Switch Box Cover

DXE-TW-COVER Band Switch Box Cover for TW-2010/2010L/3030/4040 ..... **$29.99**

CHAMELEON™ ANTENNA

Spike Mount

Easily "plant" a 3/8"-24 stud mount into the ground for your portable antenna. This stainless steel mounting solution from Chameleon even features a thumb screw for using a counterpoise system. Please note that it requires an antenna with a separate feed point.

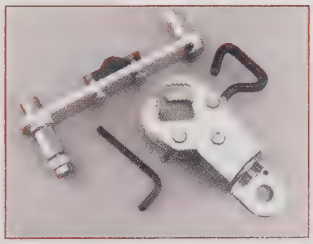
CHA-SPIKE-MOUNT Spike Mount **$50.99**

CHAMELEON™ ANTENNA

Jaw Mount

Here's a quick, easy way to rapidly deploy your vertical mast. It's got a 3/8"-24 threaded mount on one end and a set of steel jaws on the other. The jaws will clamp securely on 3/4" to 2" OD tubing. The mount works in a vertical or horizontal orientation and will handle 250 watts PEP.

CHA-JAWMOUNT Jaw Mount **$39.99**



Call us for easy special orders!

DX ENGINEERING

DXE-RR8B-HP

Remote Antenna Switches

DX Engineering uses a symmetrical design in these switches to ensure excellent reliability and performance. Installation is easy too. Simply use the switch's external control cable connector to attach your CAT-5 cable to the controller in your shack.

These switches provide great SWR and superior port-to-port isolation—better than 60 dB for ALL ports, not just the best port. You'll see 70 dB (HP) and 60 dB (SD) in worse-case scenarios. That's the highest port isolation of all the major-brand coax switches we've tested.

They're fully RF-sheilded with a UV-resistant cover, and have built-in lightning protection. The unused antenna ports can be jumpered for open control line with no disassembly or they can be easily shorted to ground.

High Performance (HP) and Severe Duty (SD) Options

The DXE-RR8B-HP uses 16 relays (2 per port) in a star arrangement to provide greater than 70 dB of port-to-port isolation. It is designed to switch coaxial lines in RF systems operating up to 5 kW continuous duty. The DXE-RR8B-SD is the largest switch in the RR8B series, designed to switch coaxial lines in high power RF systems up to 10 kW continuous duty.

Specifications

- Sealed RF Relays: 20 amps (HP), 25 amps (SD)
- Power Rating (<2:1 SWR at 30 MHz): 7 kW ICAS/5 kW CCS (HP), 10 kW ICAS/CCS (SD)
- Control Voltage: 10-14 Vdc/100 mA (HP), 10-14 Vdc/160 mA (SD)
- Loss (HP): <0.03 dB below 60 MHz, <0.25 dB below 150 MHz
- Loss (SD): <0.03 dB below 30 MHz, <0.16 dB below 60 MHz
- Impedance: 50 Ω
- Control Line: 8-wire plus ground, #24 up to 1,000' (DXE-CW9S)

Single-Input 8-Port RF Switches and Console Combos

DXE-RR8B-HP	5 kW Key-Down Switch	$383.99
DXE-RR8B-HP-P1	5 kW Key-Down Switch with CC-8A Console	$573.98
DXE-RR8B-HP-P2	5 kW Key-Down Switch with EC-8 Console	$508.98
DXE-RR8B-SD	10 kW Key-Down Switch	$466.99
DXE-RR8B-SD-P1	10 kW Key-Down Switch with CC-8A Console	$656.98
DXE-RR8B-SD-P2	10 kW Key-Down Switch with EC-8 Console	$591.98
Accessories		
DXE-RLY-HP	SPDT 5 kW Sealed RF Relay, Board-Mount	$10.99
DXE-RLY-SD	SPDT DM/DB 10 kW RF Relay, Board-Mount	$23.99
DXE-CW9S	Shielded Control Wire, 9-Conductor Stranded	per foot $0.38

EC-4 4-Position Control Console

The DXE-EC-4 is a flexible, four-position controller used to control the DX Engineering Receive Four-Square series or any other product using a four-position (three wire plus ground) BCD control format. It features a powdercoated housing with an ON/OFF switch and green LEDs with scratchpad areas to mark the switch position function. It requires 12 Vdc for operation.

Additional Features:

- Stainless steel housing
- Non-skid feet
- Four green position-indicating LEDs
- An internal automatic resettable fuse
- Includes a 2.1mm power plug for +12 Vdc power connection

DXE-EC-4	4-Position Control Console	$124.99

CC-8A Deluxe 8-Position Control Console

The CC-8A is a flexible 8-position controller for DX Engineering RR8 Series Antenna Switches or any product that uses a 12/24 Vdc, 1-of-8 or BCD control format. The powdercoated metal housing features an on/off switch, ergonomic selector knob, and eight front-panel LEDs (with adjustable brightness) to indicate switch position. It has a stainless steel base plate and operates from a 12 Vdc or 24 Vdc source.

DXE-CC-8A	Deluxe 8-Position Control Console	$189.99

EC-8 8-Position Control Console

The EC-8 is a versatile 8-position controller for DX Engineering RR8A Series Antenna Switches, or any other product that uses a 12/24 Vdc, 1-of-8 control format. The powdercoated metal housing features an on/off switch with green power LED and an ergonomic selector knob with scratchpad areas to mark the switch position function. It has a stainless steel base plate and operates from a 12 Vdc source.

DXE-EC-8	8-Position Control Console	$124.99

HAMPLUS

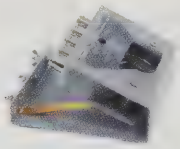
HPY-AS-86F

Antenna Switches

Hamplus offers these excellent solutions for switching multiple antennas to multiple radios. These antenna switch relay unit models support 6, 8 or 12 antenna inputs and 2, 4 or 6 radio outputs. They cover HF and 6M bands, easily handle full legal limit power, insertion loss is a scant 0.1 dB, and offer impressive port isolation. They allow one radio to access one antenna at a time. For protection, all antennas are grounded when not selected or when the system is powered off. These remote antenna switches are typically operated automatically or manually with the illuminated push-buttons of the MBD-8E, MBD-8F or MBD-12F Smart Antenna Switch Control Units, one at each radio position.

Hamplus offers the RC-12 Manual Control Unit with rotary knob and LEDs to indicate antenna selection. They operate any of the remote antenna switches and can also be used at each radio position. They feature busy net lockout of antennas selected by the other control consoles.

Part Number	Radio Inputs	Antenna Outputs	Max. SWR	Price
HPY-AS-62	2	6	1.8:1	$521.99
HPY-AS-82F	2	8	1.7:1	$749.99
HPY-AS-84F	4	8	1.7:1	$1,395.99
HPY-AS-86F	6	8	1.7:1	$2,195.99
HPY-AS-1202F	2	12	1.7:1	$1,195.99
HPY-AS-1204F	4	12	1.7:1	$2,195.99
HPY-AS-1206F	6	12	1.7:1	$3,295.99
Control Unit				
HPY-RC-12	Manual Control Unit for up to 12 Antennas			$179.99



ALF-ASC-4B-N

ALF-DELTA-4B-N

ALF-DELTA-2B

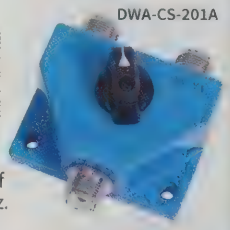
ALPHA DELTA COMMUNICATIONS, INC.

Manual Antenna Switches

Alpha Delta antenna switches have precision-machined, low loss components for reliable service. Grounded unselected antenna ports and ARC-PLUG™ lightning surge protectors provide the final line of protection. Rated at 1,500 watts max. up to 30 MHz.

ALF-DELTA-2B	2-Position Coax Switch, SO-239 Connector	$76.99
ALF-DELTA-2B-N	2-Position Coax Switch, N Connector	$94.99
ALF-DELTA-4B	4-Position Coax Switch, SO-239 Connector	$109.99
ALF-DELTA-4B-N	4-Position Coax Switch, N Connector	$119.99
ALF-ASC-4B	4-Position Desk Console Switch, SO-239 Connector	$158.99
ALF-ASC-4B-N	4-Position Desk Console Switch, N Connector	$168.99
ALF-D4	Replacement ARC-PLUG	$9.99

DWA-CS-201A



Manual Antenna Switches

DAIWA

Perfect for switching one radio between two antennas (or two radios between one antenna), these rugged switches offer excellent isolation and auto-grounding of the unused terminal for extra protection.

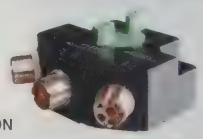
Daiwa's CS-2011GII has a frequency range up to 2 GHz, 50 dB of isolation at 1 GHz and an insertion loss below 1.2 dB at 1.2 GHz. Gold plated N connectors make for easy installation.

The CS-201A has a frequency range up to 600 MHz, 60 dB of isolation at 600 MHz and an insertion loss under .2 dB. This switch features SO-239 connectors.

DWA-CS-201GII	Manual Coax Switch, 2 GHz	$48.99
DWA-CS-201A	Manual Coax Switch, 600 MHz	$32.99

DIAMOND ANTENNA

DMN-CX210N

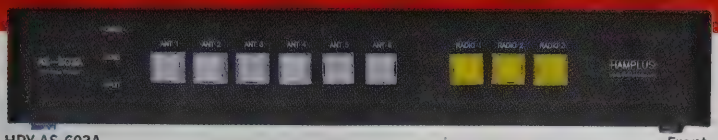


DMN-CX310A

Wideband Coax Switches

Maximum performance without compromise. Diamond Antennas offers an extensive line of station accessories: duplexers/triplexers, switches, dummy loads and lightning protection. Maximize your installation; Diamond Antennas has the gear to help you do it.

Part Number	Description	Price
DMN-CX210A	Wideband Coax Switch, 1,500 W Max., DC-1000 MHz, SO-239	$49.99
DMN-CX210N	Wideband Coax Switch, 1,500 W Max., DC-1000 MHz, N Connector	$82.99
DMN-CX310A	Wideband Coax Switch, 3-Position, DC-800 MHz, SO-239	$93.99



HPY-AS-603A Front

Desktop Antenna Switches

Hamplus AS-603 Desktop Manual Switches feature six antenna inputs and three radio outputs for quick, one-at-a-time rotary switch selections.

Hamplus AS-603A Desktop Smart Antenna Switches features illuminated push-buttons indications of six antenna inputs and three radio output selections. Built-in intelligent band decoder and antenna memory allows effortless automatic or manual antenna band switching. The AS-603A is compatible with popular Elecraft, Kenwood, Yaesu and Icom transceivers or any radio equipped with a BCD.

HPY-AS-603	Desktop Antenna Switch	$379.99
HPY-AS-603A	Desktop Smart Antenna Switch	$399.99
HPY-AS-603AL	Desktop Smart Antenna Switch, w/Amplifier Connectors	$475.99

HPY-MBD-12F

Smart Antenna Control Consoles

Operate your multi-input, multi-output Hamplus Antenna Switch system using these Smart Antenna Control Consoles, one at each radio position. It doesn't matter whether your transceiver positons are together in a contest station or far apart in separate radio shacks in different rooms! These Memory Band Decoder (MBD) control units connect directly with popular Elecraft, Icom, Kenwood and Yaesu transceivers for antenna automation and easy switching between radios. Illuminated push-buttons and busy LEDs indicate manual or automatic antenna selections from all system controllers. They allow for split operation, using a separate transmit and receive antennas. A simple 'one-radio-per- antenna' interlock system and hot switch safeguards protect your radios and antennas from damage. More importantly, they require no PC or software, and work with all Hamplus rotator and antenna switches. These consoles also support multi-controller, multi- Rotator Switches for memorization of antenna rotator selections. Optional two-way switch units make it possible to control up to 16 antennas by piggybacking two Smart Antenna Control Consoles per operating position. The HPY-MBD-8F comes with band data output, bandpass filter control output, and Waller Flag receive antenna control ports.

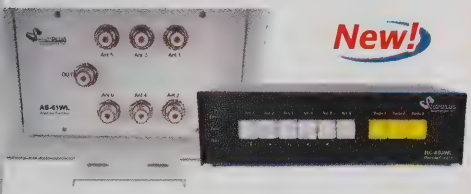
HPY-MBD-8F	MBD Remote Control Unit, for 8 Antennas, with Added Outputs/Ports	$499.99
HPY-MBD-12F	MBD Remote Control Unit, for 12 Antennas	$699.99

New!

6-Antenna Smart Control Console

The new MBD-62 provides intelligent control for up to six antennas and two radios. It's compatible with all Hamplus antenna switches and those from select other manufacturers. Suitable for use with the new Hamplus AS-62 antenna switch, the controller features two band decoders; two outputs for triggering band pass filters; 16 general purpose outputs (eight for each radio); two manual and two automatic ways to select antennas; antenna memory capabilities, with 25 bands that cover from 100 KHz to 450 MHz; split antenna operation (one antenna transmits and one receives); software updates via USB; and more. The MBD-62 recognizes Icom CI-V, Yaesu and Elecraft BCD, and Kenwood, Icom and Elecraft RS-232 radios.

HPY-MBD-62	Smart Antenna Control Console, 6 Antennas/2 Radios	$489.99
HPY-CC62-5M	Pin to Pin Cable for MBD-62 to AS-62 Antenna Switcher	$39.99



New!

Automatic Remote Antenna Switch System for 6 Antennas, 3 Radios

The new AS-61WL antenna switch unit comes with a separate indoor control console (RC-603WL) featuring easy-to-use push-button controls for quick selection of six antennas and up to three radios. The RF-capable control console also allows for the insertion of a linear amplifier, wattmeter or both. Any length of 50 Ω cable connects between the two units to carry full power RF and commands. The control console is an intelligent band decoder with antenna selection memory. It features automatic band memory operation with compatible transceivers including Elecraft K3 (RS-232), Kenwood (RS-232), Yaesu CAT (RS-232) and Icom (CI-V); operation from 1.5 MHz to 60 MHz; maximum 0.1 dB insertion loss; and the ability to handle 2,500 watts PEP. Provides non-simultaneous six-antenna operation to one of three radios. All antennas and radios are switched to ground when not in use. SO-239/UHF female connectors.

HPY-AS-61WL	Automatic Antenna Switch, 6 Antennas/3 Radios	$699.99

Four Stack Antenna Switching System

HPY-4STACKII-N_

Simultaneously operate up to four antennas in any combination as a single phased array for superior performance over a single antenna. Hamplus' Four Stack System includes the antenna switch relay unit and control console. The console uses straightforward illuminated push-button controls, making it easy to select your desired antenna configurations—you can use any combination of four compatible antennas. The antenna switch relay unit is housed in a rugged enclosure, durable enough for permanent outdoor installation. The Four Stack System handles full legal limit power and covers the HF bands.

For N Type and SO239 Connectors

HPY-4STACKII-N	For N Type Connectors	$899.99
HPY-4STACKII-U	For SO239 Type Connectors	$899.99

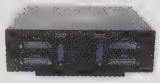
External Antenna Switch

HPY-AS-81

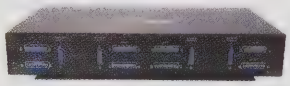
Simple, basic and rugged, the Hamplus AS-81 Antenna Switch features 8 antenna inputs fed to a single output. A DB-25F connector is provided for easy connection of the control line. Simple 13.8 Vdc control with optional Hamplus Switch Control Console models MBD-8E or RC-12. This switch handles well over full legal limit. All SO-239 (UHF female) inputs connect to ground when not powered. Insertion loss is equal or less than 0.1 dB and the switch boasts 58 dB of port isolation at 30 Mhz. Add a Hamplus AS-21 Switch module to combine two AS-81 switches for an impressive control of up to 16 antennas.

HPY-AS-81	8 Port External Antenna Switch	$399.99
HPY-AS-21	Antenna Switch, 1 Input and 2 Output	$199.99
HPY-CC-5M	Connection Cable for AS-81 and AS-21	$49.99

Rotator Switches



HPY-RS-28



HPY-RS-48

Control up to eight rotators with two or four rotator controllers with Hamplus Rotator Switches. This advanced level of station automation is possible in conjunction with the Hamplus Smart Antenna Control Consoles above. These incredibly useful relay boxes are a contester or DX chaser's best friends. They are extremely useful if you have multiple stations set up in different areas of your home. Each Rotator Switch incorporates a safety interlock to avoid any rotator and controller conflicts.

Part Number	Controllers (Max.)	Rotators (Max.)	Price
HPY-RS-24	2	4	$599.99
HPY-RS-28	2	8	$899.99
HPY-RS-44	4	4	$999.99
HPY-RS-48	4	8	$1,795.99

Transceiver Radio Interface Cables

HPY-YRC-8

HPY-YRC-12

HPY-KRC-8

HPY-IRC-8

HPY-ERC-8

These cables are necessary to complete the connection of each smart Remote Control Console or Desk Antenna Switch with its Transceiver. Choose your cable based on your radio/interface model below.

Part Number	Radio	Remote Unit	Price
HPY-IRC-6	Icom	AS-603A	$65.99
HPY-IRC-8	Icom	MBD-8	$69.99
HPY-IRC-12	Icom	MBD-12	$69.99
HPY-YRC-61	Yaesu (Mini)	AS-603A	$65.99
HPY-YRC-6	Yaesu (DIN)	AS-603A	$65.99
HPY-YRC-8	Yaesu	MBD-8	$69.99
HPY-YRC-12	Yaesu	MBD-12	$69.99
HPY-KRC-6	Kenwood	AS-603A	$65.99
HPY-KRC-8	Kenwood	MBD-8	$69.99
HPY-KRC-12	Kenwood	MBD-12	$69.99
HPY-ERC-6	Elecraft K3	AS-603A	$65.99
HPY-ERC-8	Elecraft K3	MBD-8	$69.99
HPY-ERC-12	Elecraft K3	MBD-12	$69.99

LBS LOW BAND SYSTEMS

LBS-PB-F500-1-8

HF Transmit Band Pass Filters

These high-quality, multi-stage units limit the RF to a single band, effectively eliminating the RF inference issues multi-radio contesters experience when using dedicated monoband stations. They're also extraordinarily valuable if your Field Day setup includes several monoband radio operations.

Low Band Systems makes these filters as a complement to its high performance multiplexers, but they're compatible with other manufacturer's multiplexers as well. The filters deliver the critical isolation demanded by each multiplexer's band input. Installed in optimal conditions, users can experience up to 80 dB of isolation between all connected transceivers, regardless of the operating band.

Part Number	Band	Power Rating	Price
LBS-PB-F200-1-8	160M	200 Watts	$129.99
LBS-PB-F200-3-5	80M	200 Watts	$129.99
LBS-PB-F200-7	40M	200 Watts	$129.99
LBS-PB-F200-10	30M	200 Watts	$129.99
LBS-PB-F200-14	20M	200 Watts	$129.99
LBS-PB-F200-18	17M	200 Watts	$129.99
LBS-PB-F200-21	15M	200 Watts	$129.99
LBS-PB-F200-24	12M	200 Watts	$129.99
LBS-PB-F200-28	10M	200 Watts	$129.99
LBS-PB-F200-50-52	6M	200 Watts	$129.99
LBS-PB-F200-5052N	6M	200 Watts	$129.99
LBS-PB-F500-5MHZ	60M	500 Watts	$169.99
LBS-PB-F500-1-8	160M	500 Watts	$169.99
LBS-PB-F500-3-5	80M	500 Watts	$169.99
LBS-PB-F500-7	40M	500 Watts	$169.99
LBS-PB-F500-10	30M	500 Watts	$169.99
LBS-PB-F500-14	20M	500 Watts	$169.99
LBS-PB-F500-18	17M	500 Watts	$169.99
LBS-PB-F500-21	15M	500 Watts	$169.99
LBS-PB-F500-24	12M	500 Watts	$169.99
LBS-PB-F500-28	10M	500 Watts	$169.99
LBS-F2000-1-8-B	160M	2,000 Watts	$389.99
LBS-F2000-3-5-B	80M	2,000 Watts	$389.99
LBS-F2000-7-B	40M	2,000 Watts	$389.99
LBS-F2000-14-B	20M	2,000 Watts	$389.99
LBS-F2000-21-B	15M	2,000 Watts	$389.99
LBS-F2000-28-B	10M	2,000 Watts	$389.99

DLW ASSOCIATES

AM Broadcast Band Brick-Wall High Pass Filter

Live near a commercial AM station? Here's an effective way to combat its inference. Below 1.7 MHz, the filter hits unwanted signals with over 40 dB of attenuation. And it's virtually unnoticeable on the HF bands—there's less than 0.85 dB of loss with a SWR under 1.2:1. The filter is optimized for 50 Ω and installs between your radio and antenna (or amplifier/tuner). It handles 200 watts.

DLW-FL1718 AM Broadcast Band Brick-Wall High Pass Filter..... $195.00

DX ENGINEERING

Automatic Band-Pass Filter

Enjoy ultra-quiet reception and eliminate out-of-band emissions with the new DXE-419 Automatic Band Pass Filter. You can select from one of six band-pass filters with the simple push of a front-panel button.

DX Engineering's Automatic Band-Pass Filter comes preloaded with filters for the 160, 80, 40, 20, 15 and 10 meter bands. With over 40 dB of stop-band rejection, each filter effectively removes unwanted and interfering noise and signals from all but the single band you have selected.

Having multiple filters in one box means you can quickly switch bands without the hassle of changing components in your signal path. That makes the DXE-419 an excellent choice for the contester who needs to move quickly across the most popular HF bands.

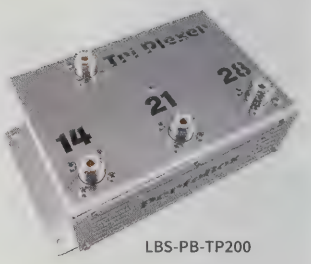
The 50 Ω DXE-419 band pass filter handles over 100 watts key-down RF and features SO-239 input and output connectors. When operated with less than 1.5 VSWR at the band-pass filter port, it will tolerate up to 200 watts transmit power. Insertion loss is a mere 0.25 dB at 30 MHz.

Internal band-switching relays and selection LEDs are powered by 13.8 Vdc via the rear panel 2.1mm power connector. A power supply is available separately.

DXE-419 Automatic Band-Pass Filter..... $699.99

DXE-PSW-12D1A Power Supply for DXE-419, 13.8 Vdc @ 1A $19.99

LBS-PB-TP500



LBS-PB-TP200

LBS LOW BAND SYSTEMS

HF Multiplexers

Building a multi-op station? You can use Low Band Systems' Multiplexers to connect multiple radios to a single multi-band antenna, allowing each radio to operate a different band simultaneously. Not only does that reduce the equipment installation hassle, you'll save a ton of money by not having to buy extra antennas and coax cable. Insertion loss is negligible too, typically less than 0.2 dB and each radio will receive 35 dB of rejection from off-band signals. The multiplexers provide a VSWR less than 1.2:1 and work with 50 Ω feedlines. They're an ingenious solution for multi-op contesting, DXing and Field Day!

It's important to note that these multiplexers simply split the RF signal, you'll still need to install the appropriate band pass filters. Appropriate band pass filters found in the adjacent column.

Part Number	Type	Band Ports	Power Handling	Price
LBS-PB-DP200-357	Duplexer	80M & 40M	200 W ICAS	$179.99
LBS-PB-DP2001835	Duplexer	80M & 160M	200 W ICAS	$179.99
LBS-PB-DP500-357	Duplexer	80M & 40M	500 W ICAS	$229.99
LBS-PB-DP5001835	Duplexer	160M & 80M	500 W ICAS	$229.99
LBS-DP2000-357-B	Diplexer	80M & 40M	2,000 W ICAS	$359.99
LBS-DP20001835-B	Diplexer	160M & 80M	2,000 W ICAS	$389.99
LBS-TP200-804020	Triplexer	80M, 40M & 20M	200 W ICAS	$209.99
LBS-PB-TP200	Triplexer	20M, 15M & 10M	200 W ICAS	$215.99
LBS-PB-TP500	Triplexer	20M, 15M & 10M	500 W ICAS	$279.99
LBS-TP2000-B	Triplexer	20M, 15M & 10M	2,000 W ICAS	$439.99
LBS-PB-QP200	Quadplexer	40M, 20M, 15M & 10M	200 W ICAS	$269.99
LBS-PB-QP500	Quadplexer	40M, 20M, 15M & 10M	500 W ICAS	$349.99
LBS-QP2000-B	Quadplexer	40M, 20M, 15M & 10M	2,000 W ICAS	$519.99

Hams Like You

When you purchase gear from DX Engineering or call for advice, you're dealing with fellow Amateur Radio enthusiasts who speak your language and share your passion. We know what it feels like to break through a pile-up, put up a tower on Field Day, and participate in a marathon CW session. Together, let's continue to make Ham Radio thrive for the next generation!

A Few Favorite QSLs from Our Team

3Y5X Bouvet Island, 1989

"It's been almost 30 years since I made contact with Bouvet, the most remote island in the world. I worked them on 160 meters. Today, it remains one of the most elusive DXCC entities, currently ranking at number two on the most-wanted list." Bob W5OV

P5/4L4FN North Korea, 2002

"North Korea has been the most-wanted DXCC entity for many years, and I was fortunate to make this contact using radio teletype." George K3GP

BS7H Scarborough Reef, 2007

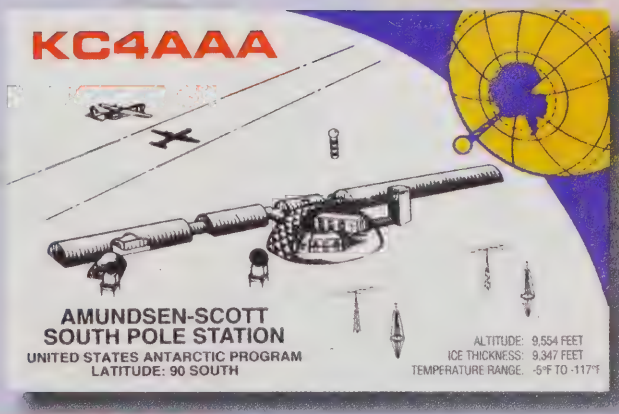
"Scarborough Reef is only above water for a few hours a day. The DXpedition operators had to build platforms to put their stations above water. That part of Asia is usually one that is difficult to contact under good conditions. This resulted in the biggest pile-ups of countless Hams around the world transmitting at the same time. Luckily they heard my call-out. Confirming this contact made it possible for me to get on the ARRL DXCC Honor Roll." David N8NB

SV2ASP/A Mount Athos, 2018

"I had been hoping to work Monk Apollo for over a decade, having caught him on the air only a few times...always just a little too light and with too huge a European wall of Hams. I wondered if I would ever get to work Mount Athos, with Monk Apollo being the only Ham there. This year he heard me calling him on CW. I was a little shocked when I heard him come back to me, but the contact was made and the dancing began." Mark W8BBQ

K4XD North Carolina, 2006

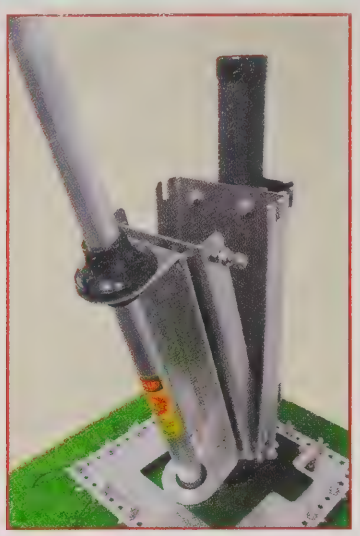
"Working a new grid on the 6 meter magic band like K4XD's in North Carolina is always fun and exciting. Running QRP at only 5 watts to a set of 6 meter stacked loop antennas makes it even a bigger challenge. I love operating the 6 meter magic band challenge." Bob N8QE



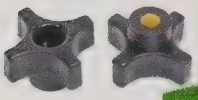
KC4AAA South Pole, 1997

"Contacted the South Pole on 20 meters using 100 watts and a wire antenna." Tom KB8UUZ

DX ENGINEERING



DXE-OTMC-250P



DXE-AOK-OT1194

OMNI-TILT™ Vertical Antenna Tilt Base Packages

Thanks to its all-new design features, the DX Engineering OMNI-TILT Vertical Antenna Tilt Base has become wildly popular. So, we decided to make it even easier to install by creating vertical antenna packages that include both the base and a comprehensive hardware kit.

The OMNI-TILT Base was designed upon on the same proven-safe technology as the patented DX Engineering Saf-T-Tilt™ Base and the patented DXE-TB-3P Tilt Base. The antenna can't fall when the fasteners are loosened. Lifting the OMNI-TILT base plate disengages the bolts from the top, so the antenna can be easily lowered for maintenance or to protect it from extreme weather.

It's custom made from laser cut 1/8" thick stainless steel for strength and durability. All of the hardware used in the OMNI-TILT Base is stainless steel to ensure long and dependable service. The DX Engineering OMNI-TILT base is compatible with a wide variety of vertical antennas—including homebrew verticals.

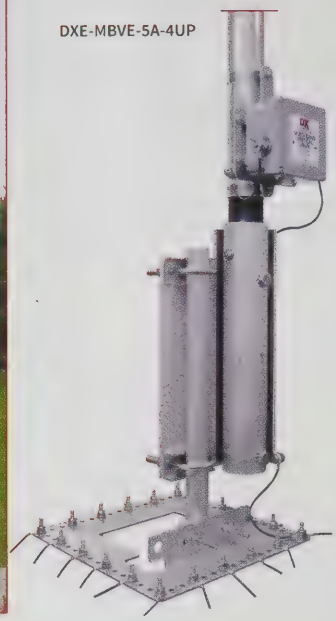
We make several OMNI-TILT optional mounting hardware kits available separately to expand and upgrade the base's versatility.

DXE-OMNITILT-1P	OMNI-TILT Package for Trap Verticals	**$73.98**
DXE-OMNITILT-2P	OMNI-TILT Package for Mast Mounted Verticals	**$119.97**
DXE-OTMC-250P	OMNI-TILT Mounting Clamp Kit	**$24.99**
DXE-TVA-HWK	Replacement Tilt Base Hardware Kit	**$3.99**
DXE-AOK-OT1194	OMNI-TILT Wing Nut Knobs	**$9.99**

Note: OMNI-TILT shown with optional parts.

DX ENGINEERING

DXE-MBVE-5A



DXE-MBVE-5A-4UP

Multi-Band High-Performance 43 Foot Vertical Antenna Packages With SAF-T-TILT™ Base

If you want to work DX, but don't have the real estate for an antenna farm, these packages are an excellent solution. They deliver exceptional multi-band performance with a compact size and attractive price. These easy to setup, easy to use packages cover the entire HF band, from 160 to 10 meters.

The rugged 43' antenna employs a free-standing, fast taper design that can survive winds up to 92 mph. It's made from 6063-T832 drawn aluminum and features stainless steel hardware for excellent corrosion resistance. Each package below includes the DX Engineering's exclusive patented SAF-T-TILT™ base, which lets you safely raise and lower your antenna for service.

The MBVE-5A antenna requires DX Engineering's UN-43 UNUN and a wide-range tuner. You'll also need 150' of RG-213 cable, sold separately. For optimum results, we recommend a good ground radial system (32 radials, each 32' to 65' long). You can get by with fewer radials with diminished performance.

We've created kits that bundle together some of the essential components. A brief summary is below; a comprehensive description of each combo is at DXEngineering.com.

DXE-MBVE-5A	Package, Antenna and Tilt Base	**$287.98**
DXE-MBVE-5A-4P	Package, Antenna, Tilt Base, Radial Plate, Hardware	**$376.44**
DXE-MBVE-5A-4UP	Package, Antenna, Tilt Base, UNUN, Mounting/ Connection Kit	**$436.95**
DXE-MBVE-5A-4UPR	Package, Antenna, Tilt Base, Radial Plate, UNUN, Mounting/ Connection Kit	**$525.41**

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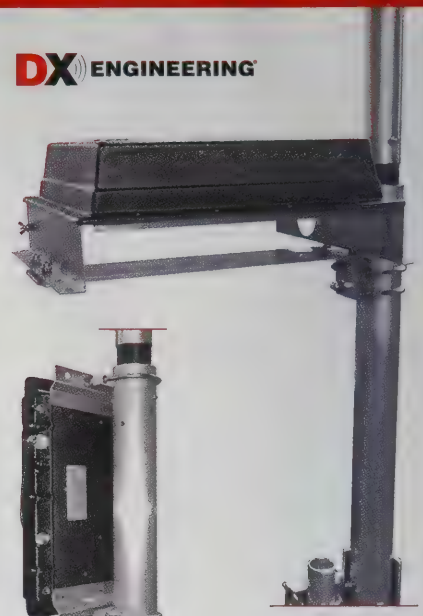


DXE-MBVE-5UG-BRT

DXE-MBVE-5UG-BRT

DXE-MBVE-5AE-RT

43' Verticals and Remote Antenna Tuner Mounting Kits

It's important to mount your MFJ remote antenna tuner as close as you can to your DX Engineering MBVE-5A multi-band vertical antenna to maintain signal efficiency. Just make sure to protect it from weather, rising water and curious critters.

Use DX Engineering's new remote antenna mounting kits. They attach right to the base of the vertical. More importantly, they'll mount the tuner up off the ground—away from Mother Nature and her furry friends.

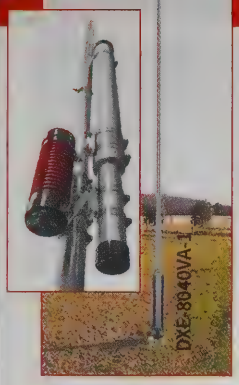
Select your kit based on your tuner model; the MFJ 927, 993, 994 and 998 remote tuners are supported.

DXE-MBVE-5AE-BRT	Mounting Kit, for MFJ-993/994BRT	**$338.97**
DXE-MBVE-5AEBRT3	43' Vertical and Mounting Kit, MFJ-993BRT Tuner	**$718.39**
DXE-MBVE-5AEBRT4	43' Vertical and Mounting Kit, MFJ-994BRT Tuner	**$818.39**
DXE-MBVE-5AE-RT	Mounting Kit Only, for MFJ-998RT	**$393.97**
DXE-MBVE-5AERT8	43' Vertical and Mounting Kit, MFJ-998RT Tuner	**$1,213.39**

Remote Antenna Tuner Mount Upgrade Kits

If you have an earlier model MBVE-5, you can also upgrade to the 5AE mount with these kits.

DXE-MBVE-5UG-BRT	Upgrade Kit, for MFJ-993/994BRT	**$129.97**
DXE-MBVE-5UGBRT3	Upgrade Kit, Includes MFJ-993BRT Tuner	**$429.92**
DXE-MBVE-5UGBRT4	Upgrade Kit, Includes MFJ-994BRT Tuner	**$529.92**
DXE-MBVE-5UG-RT	Upgrade Kit, for MFJ-998RT	**$184.97**
DXE-MBVE-5UGRT8	Upgrade Kit, Includes MFJ-998RT Tuner	**$924.92**



THUNDERBOLT® Dual Band High-Performance Vertical Antennas

80/40 Meters

- Full band coverage on 40 and 300 kHz on 80 meters with SWR under 2:1—no outboard tuner needed
- Tunable above and below 7 MHz range for MARS and CAP frequencies
- Maximum legal power handling
- Optimum 53' overall height
- Includes Pivot Base **(Shown on page 63)**
- Self-supporting design withstands 50 mph wind **without guying**—easy raising and lowering with optional winch kit

DXE-8040VA-1	80M Vertical Antenna	**$1,045.99**
DXE-VRW-1	Manual Winch Kit	**$169.99**
DXE-7580-THK	CW Optimizer Capacity Hat	**$77.99**
DXE-8040-30AOK	30 Meter Add-On Kit	**$148.99**

40/30 Meters

- Full band coverage on 40 and 30 meters with SWR under 1.5:1—no tuner needed
- 40M bandwidth greater than 750 kHz with SWR under 2:1
- Tunable above and below 7 MHz range for MARS and CAP frequencies
- Maximum legal power handling
- Includes Tilt Base
- Optimum 30' overall height
- Self-supporting design withstands 60 mph wind without guying

DXE-4030VA-1	40/30M Dual-Band Antenna;	**$284.99**

DX ENGINEERING

Manual Winch Add-On Raising Kit

DX Engineering's Manual Winch Add-On Raising Kit lets you easily raise and lower your DX Engineering vertical antenna by yourself, which makes antenna service a much easier job. The kit can be moved from one compatible DX Engineering antenna to another, making it a valuable tool for multi-antenna arrays. This kit works with many of DX Engineering's Vertical Antennas and is an excellent complement to its Heavy-Duty Pivot Base.

Features:

- Automatic friction brake applies consistent grip to ensure controlled raising/lowering
- Automatically holds antenna position
- Handle won't spin under load
- Meets ASAE safety standard S361.3
- Rated at 1,500 lbs.
- Minimum operating load is 75 lbs.
- 2.5" diameter drum hub
- 5.1:1 gear ratio
- Zinc Tuffplate finish
- Winch strap (2" W x 15' L) with hook and loop, manufactured from low-stretch polyester webbing with 4,000 lbs. break strength
- Stainless steel hardware

DXE-VRW-1	Manual Winch Add-On Kit	**$169.99**

DX ENGINEERING

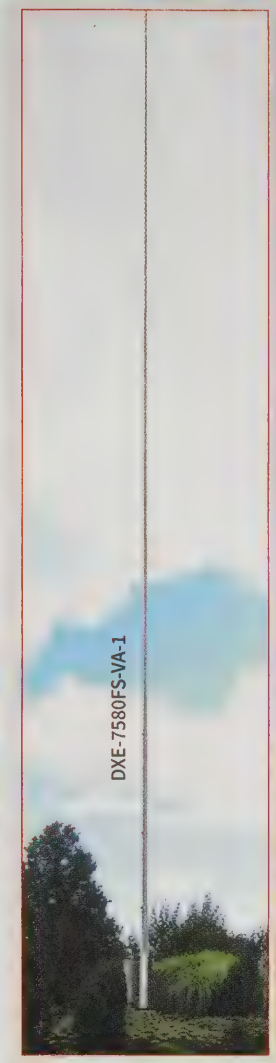
High-Performance 160 Meter Quarter-Wave Vertical

Now you can have a high-performance vertical antenna specifically for the 160 meter band. Achieve the strongest possible presence at your power level and be really competitive! This custom-designed capacity hat system integrates with light rope guying, allowing you to get on 160 meters with a BIG signal from a vertical monoband antenna that is only 55 feet tall! Constructed from aircraft-grade aluminum, the massive three inch diameter lower section is secured by a Heavy Duty Plus Stainless Steel Pivot Base, which can be lowered easily with the optional DXE-VRW One Man Manual Winch.

Antenna Features:

- 5 kW SSB and CW rated
- Unparalleled reliability
- A custom designed capacity hat for top performance
- An adjustable matching network for the lowest SWR
- 40 kHz SWR bandwidth - CW+DX Phone
- The lowest takeoff angle reduces domestic QRM signals

DXE-160VA-1	160M Vertical Antenna	**$999.99**
DXE-VRW-1	Manual Winch Add-On Kit	**$169.99**



DX ENGINEERING

75/80 Meter Monoband Vertical Antennas

DX Engineering 7580FS Series are full size, quarter-wave high-performance antennas with everything you need in a high-performance vertical. They feature ultra-wide SWR bandwidth and unbeaten gain, and can handle the highest power amplifiers for reliable performance. They're ideally suited for single antenna applications and directional multi-antenna arrays. Visit DXEngineering.com for details.

DXE-7580FS-VA-1 has a 2" OD heavy wall base section. Its slim profile means you can hide it easily, even in a small stand of tall trees. Some DXers have painted the antenna to match the bark of the surrounding trees. Because of its slim, full size height, guying is required on this antenna.

DXE-7580FS-VA-1	2" OD Full Size Vertical	**$399.99**

DXE-7580FS-VA-2 has a 3" OD heavy wall base section and thick-wall 6061 aluminum tubing mid-sections, providing a strong antenna with **no guying necessary**. The antenna can easily be lowered with the supplied Heavy Duty Plus Stainless Pivot Base and the optional DXE-VRW-1 hand winch.

DXE-7580FS-VA-2	3" OD Full Size Vertical	**$899.99**
DXE-VRW-1	Manual Winch Add-On Kit	**$169.99**

The massive DXE-7580FS-VA3 features a 4" OD heavy wall base section and thick-wall 6061 mid sections, creating a very stout 68 foot vertical antenna with **no guying necessary**, even in adverse conditions. It can be lowered easily with the supplied Heavy Duty Plus Stainless Pivot Base and the optional DXE-VRW-1 hand winch.

DXE-7580FS-VA-3	4" OD Full Size Vertical	**$1,769.99**
DXE-VRW-1	Manual Winch Add-On Kit	**$169.99**

Call us for easy special orders!

Multi-Band High Performance HF Vertical Antenna Systems Now with OMNI-TILT Option

DX ENGINEERING

DX Engineering's tech support teams have bundled together multi-band vertical antenna systems designed to get you on the HF bands quickly, without the component-matching hassles. The systems are based around a Hustler Multi-Band HF Vertical.

The DX Engineering team chose Hustler because of the antennas' performance, durability and versatility. The verticals are easy to tune and deliver outstanding performance.

Our original combo also includes DX Engineering's patented Radial Plate, which creates an ultra-reliable radial system to ensure optimized antenna performance. The patented DX Engineering Tilt Base makes it easy to raise/lower the antennas for service, bad weather, or to keep the neighbors happy.

You'll also get appropriate stainless steel clamps, hardware, radial wire with staples, direct coax feedpoint kit, SecureMount™ connector kit, coax jumper and a 64 page installation guide. Our new package comes with the sturdy and easy-to-use OMNI-TILT base (radial wire kit not included). Exact contents vary by system, visit DXEngineering.com for details.

Band Coverage							
Multi-Band High Performance HF Vertical Antenna Systems with OMNI-TILT Base							
Part Number	80M	40M	30M	20M	15M	10M	Price
DXE-HSR-4BTV-P2		X		X	X	X	$447.88
DXE-HSR-5BTV-P2	X	X		X	X	X	$487.88
DXE-HSR-6BTV-P2	X	X	X	X	X	X	$497.88
Part Number	80M	40M	30M	20M	15M	10M	Price
DXE-HSR-4BTV-P1		X		X	X	X	$517.86
DXE-HSR-5BTV-P1	X	X		X	X	X	$533.86
DXE-HSR-6BTV-P1	X	X	X	X	X	X	$567.86

BTV Verticals

HUSTLER

The Hustler BTV antenna series delivers great performance, easy assembly, and the best reliability of any multi-band vertical on the market. These antennas offer 2:1 SWR or better at the band edges and up to a 100 kHz bandwidth on 75/80M (5BTV and 6BTV only). Hustler's exclusive trap design offers the lowest loss possible.

Hustler BTV series antennas are a quarter-wave-trapped vertical design that should be ground-mounted with radials or elevated-mounted with tuned radials. Visit DXEngineering.com for more information about radials for quarter-wave vertical antennas.

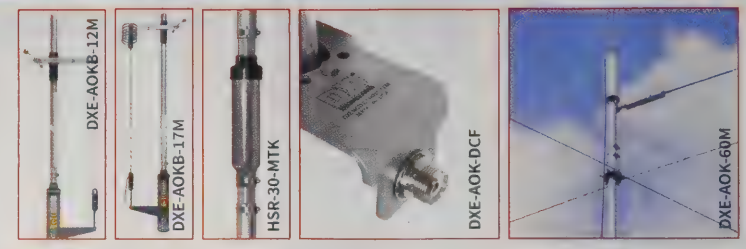
The sealed cover on the traps assures stable tuning in all kinds of weather. There is a wide tuning range designed in the antenna to accommodate differing ground plane conditions. All antenna sections use 1.25 inch heavy wall, high strength aluminum. The traps use a solid 1 inch fiberglass form for optimum electrical and mechanical stability. The base uses an extra heavy duty aluminum mounting bracket with low loss, high strength insulators.

HSR-4BTV	BTV-4 Band Antenna Only	$185.99
HSR-5BTV	BTV-5 Band Antenna Only	$225.99
HSR-6BTV	BTV-6 Band Antenna Only	$235.99

Service Parts for Hustler Verticals

DX Engineering now stocks a ton of parts to keep your Hustler Antenna on the air for a long time. These are genuine Hustler parts, so you're assured both excellent fit and function. Don't see a critical part you need? Call us, we may be able to special order it for you—or perhaps suggest a custom solution.

Part Number	Description	Price
HSR TRAPCVR-P	Replacement Trap Caps, Set of 4	$19.99
HSR-3772-1	Clutch Nut for Old-Style RM Resonators	$1.50
HSR-3774-1	Clutch Sleeve for Old-Style RM Resonators	$1.50
HSR-4087-1	Lower Aluminum Tube for BTV Series	$29.99
HSR-4090-1	10 Meter Trap for BTV Series	$42.99
HSR-4090-2	15 Meter Trap for BTV Series	$42.99
HSR-4090-3	20 Meter Trap for BTV Series	$42.99
HSR-4090-4	30 Meter Trap for BTV Series	$42.99
HSR-4098-1	Antenna Base Assembly Bracket for BTV Series	$54.99
HSR-4457-1	Spider Assembly for 5BTV Antenna, 3-Blade	$11.99
HSR-9471	Spider Assembly for 4BTV and 5BTV, with Hardware and Tubing	$23.99
HSR-49-04-40S	Antenna Whip for RM-40S Super Resonator	$6.99
HSR-49-04-80S	Antenna Whip for RM-80S Super Resonator	$10.99



DX ENGINEERING

Add-On Kits for Hustler BTV Verticals

DX Engineering offers add-on kits that provide additional frequency band coverage or installation and operating convenience to the popular Hustler BTV vertical antenna family. Simply add the kit, make some minimal tuning adjustments, and you're on the air with an additional band. The stainless steel DXE-AOK-DCF allows simple connection of coaxial cable with a PL-259 connector.

DXE-AOKB-12M	12 Meter Add-On Kit for Hustler BTV Verticals	$69.99
DXE-AOKB-17M	17 Meter Add-On Kit for Hustler BTV Verticals	$89.99
HSR-30-MTK	30 Meter Add-On Kit for Hustler 4BTV and 5BTV Verticals	$54.99
DXE-AOK-60M	60 Meter Add-On Kit for Hustler BTV Verticals	$89.99
DXE-AOK-80M	80 Meter Add-On Kit for Hustler 4BTV Verticals	$85.98
DXE-AOK-DCF	Direct Coax Feed for Hustler BTV Verticals	$29.99
DXE-8X19-RT	Vertical Antenna Feedpoint Cable	$32.99

DX ENGINEERING

Top-Quality User Manuals

All DX Engineering branded products come with detailed, full-color user manuals that go above and beyond the competition. Crafted by a staff technical writer with years of Ham Radio experience, the manuals provide clearly written instructions and advice on maximizing performance. They're also available via free download from our website for anyone who wishes to research product specifications before making a purchase.

Vertical Antennas and Arrays

COMTEK SYSTEMS

These rugged, affordable quarter-wave antennas are designed to be used in sets to provide top performance with phased vertical array systems like the COMTEK PVS 2-antenna systems or COMTEK and DX Engineering Four-Square array controllers. **The COM-20VA antenna can be used on any single band —20, 17, 15, 12 or 10 meters— by adjusting its length.**

Constructed from 6063 aircraft-spec aluminum tubing, these antenna taper from a huge base section. High strength, UV-resistant EXTREN® insulators and a heavy aluminum plate mounting base ensure long lasting, reliable performance under adverse conditions. The antennas come with V-saddle clamps for installation to your ground-mounted pipe; 2" OD pipe is recommended, but the clamps will accept any size from 1" to 2". Stainless steel hardware included. Light rope guying is always recommended for phased systems to keep spacing precise and minimize swaying.

20 Meter Vertical Antenna

COM-20VA	20M Vertical Antenna	$147.99
COM-20VA-2P	20M Vertical Antenna, Set of 2	$295.98
DXE-TB-8P	Tilt Base, Kit	$106.98
COM-20VA-4P	20M Vertical Antenna, Set of 4	$591.96

30 Meter Vertical Antenna

COM-30VA	30M Vertical Antenna	$207.99
COM-30VA-2P	30M Vertical Antenna, Set of 2	$415.98
COM-30VA-4P	30M Vertical Antenna, Set of 4	$831.96
DXE-TB-7P	Tilt Base, Kit	$106.98

40 Meter Vertical Antenna

COM-40VA	40M Vertical Antenna	$227.99
COM-40VA-2P	40M Vertical Antenna, Set of 2	$455.98
COM-40VA-4P	40M Vertical Antenna, Set of 4	$911.96
DXE-TB-7P	Tilt Base, Kit	$106.98

See page 63 for Radial Plates and Radial Wire Kits to complete your antenna installation.

Radial Wire Kits

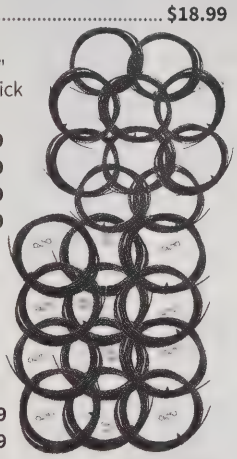
Bulk Radial Wire Kits

You should install as many radials as possible to achieve optimal performance with a ground-mounted vertical. All our radial wire kits use #14 stranded insulated copper wire that is UV-resistant, hard to see and lays down easily without a preset helix.

DXE-RADW-500K	Radial Kit, 500', Ring Terminals, Wire Staples	$106.97
DXE-RADW-500KBD	Radial Kit, 500', Ring Terminals, Biodegradable Staples	$109.97
DXE-RADW-1000K	Radial Kit, 1,000', Ring Terminals, Wire Staples	$200.95
DXE-RADW-1000KBD	Radial Kit, 1,000', Ring Terminals, Biodegradable Staples	$206.95
SUM-900031R	Wire Stripper/Crimper/Cutter Tool	$18.99

Pre-Assembled Radial Wires

These packages of pre-cut 14-gauge radial wires include 1/4" Ring Terminals that are machine-crimped on one end for quick attachment to your radial plate.



DXE-RADW-20RT	20' Radial Wire, 20 Pack	$80.99
DXE-RADW-32RT	32' Radial Wire, 20 Pack	$109.99
DXE-RADW-65RT	65' Radial Wire, 20 Pack	$199.99
DXE-RADW-120RT	120' Radial Wire, 10 Pack	$189.99

Pre-Cut Radial Kits

DX Engineering offers pre-cut radial wire kits for the 80, 40, 20, 15 and 10 meter bands, complete with wire connection hardware for elevated radial installations. Just strip the wire ends, crimp and solder. Each radial is slightly longer than a quarter-wave to allow tuning as necessary.

DXE-RADW-1K	Radial Wire Kit for 20, 15 and 10M	$26.99
DXE-RADW-40MK	Radial Wire Kit for 40M	$22.99
DXE-RADW-80MK	Radial Wire Kit for 80M	$39.99

Radial Wire Staples

There is no need to bury your radials for performance. DX Engineering Radial Wire Staples are perfect for fastening radials on the ground below the grass to eliminate the risk of damaging your radials during lawn maintenance. The radials disappear into the lawn within weeks.

DXE-STPL-100BD

Radial Wire Metal Staple

The low-cost metal staples now have a biodegradable counterpart. The "BD" suffix indicates a pack of 3 inch biodegradable anchors made from recycled PLA (Polylactide Resin). Depending on weather conditions, they will degrade in a year or two. They are easily installed and will hold radial wires in place until lawn roots overtake them—and then the staples disappear. Ecologically friendly.

DXE-STPL-100BD	Radial Wire Biodegradable Staple, 3", 100 Pack	$18.99
DXE-STPL-100P	Radial Wire Metal Staple, 6", 100 Pack	$15.99
DXE-STPL-300P	Radial Wire Metal Staple, 6", 300 Pack	$43.99

Guying Kits

Many locations experience winds that can be damaging to antennas, even at ground level. These kits provide four ground anchors and plenty of 260 pound, 3/32 inch diameter rope to provide the guying necessary to protect your vertical antenna. The black rope is UV-protected to last for years.

DXE-GUY100-KIT	BTV Guying Kit, 100' of Rope	$33.95
DXE-GUY200-KIT	BTV Guying Kit, 200' of Rope	$45.94
DXE-GUY400-KIT	Vertical Guying Kit, 400' of Rope	$69.92
DXE-GUY1000-KIT	HD Vertical Guying Kit with 1,000' of Rope	$91.95
DXE-EA15	Earth Anchor	$5.49

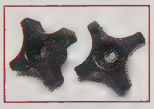
DXE-EA15

Accessories for Vertical Antennas

DXE-SSVC-2P	V-Saddle Clamp, 1" to 2" OD	$12.49
DXE-AOK-TB1193	Wing Nut Tilt Base Add-On Kit, 2 Per Pack	$8.99
DXE-AOK-DCF	Direct Coax Feed	$29.99
DXE-8XDX002	Low Power DCF Jumper Cable, 2'	$17.49
DXE-400MAXDX003	High Power/Low Loss DCF Jumper Cable, 3'	$21.49
DXE-VFCC-H05-A	Vertical Feedline Current Choke	$149.99

Wing Nut No-Tools Kit for DX Engineering Tilt Base

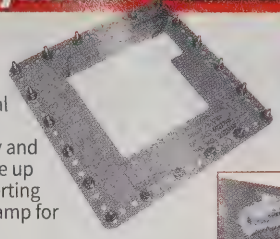
Use these wing nut knobs for tool-less quick release of the DX Engineering DXE-TB Tilt Bases—handy for lowering the antenna for tuning or daily stealth operation. Simply remove the existing hex nuts and thread on the wing nuts. The old hex nuts store on the tilt base for future use. Purchase two sets to allow tightening of the lower mounting hardware without tools and for extended periods of upright installation and use.



DXE-AOK-TB1193	Wing Nut No-Tools Knobs, Pack of 2	$8.99

DX ENGINEERING

Radial Plate

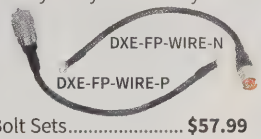


DX Engineering's patented Radial Plate provides a neat, easy and effective way to connect essential radial wires and feedline to your quarter-wave vertical antenna. The plate can be attached easily and rigidly to a 4x4 or 6x6 post, steel or aluminum pipe up to 3 inches OD, a fence post, or whatever is supporting your antenna. Purchase the optional V-Saddle Clamp for mounting the plate to pipe up to 3 inches OD.

SecureMount™

The plate assembly has been drilled for an optional SO-239 panel mount or bulkhead mount connector, available from DX Engineering. This will ground the shield of your feedline to the radial plate before it goes to the antenna, allowing maximum transfer of ground current directly into your radial system.

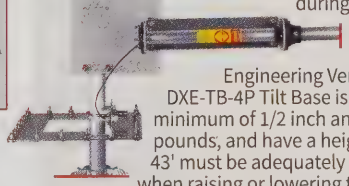
- Provides attachment for coaxial cable shield
- Square to allow most radial attachment points
- Stainless steel plate won't dissolve like aluminum
- Stainless steel hardware



DXE-RADP-3	Radial Plate with 20 Stainless Steel Bolt Sets	$57.99
DXE-RADP-1HWK	Hardware Set, Includes 20 sets of 1/4" Stainless Hardware;	$8.99
DXE-225RT-20	Ring Terminals, 1/4" Hole, for 14-/16-Gauge Wire, 20 Pack	$4.99
DXE-SSVC-2P	V-Saddle Clamp, 1" to 2" OD Applications	$12.49
DXE-SSVC-3P	V-Saddle Clamp, 2.375" to 3" OD Applications	$15.49
DXE-UHF-FDFB-KIT	SecureMount™ SO-239 Bulkhead Connector Kit	$15.48
DXE-112-KIT	SO-239, PTFE/Silver, Chassis Mount with Hardware	$9.99
DXE-363-SST	SO-239, PTFE/Silver, Bulkhead Fitting with Hardware	$7.49
DXE-FP-WIRE-N	Feedpoint Assembly, N Connector, Use with DXE-1023	$19.99
DXE-FP-WIRE-P	Feedpoint Assembly, PL-259, Use with DXE-UHF-FDFB-KIT	$17.99
PTX-81343	Anti-Seize Compound, 1 Oz. Squeeze Tube	$3.99

Tilt Base

No more climbing ladders or removing a bracket from the support post. One person can easily lift the antenna, tilt it to the side and walk it down. The optional DXE-AOK-TB1193 Wing Nut Kit makes for a no-tools fastening of the tilt base. Precision-cut from 3/16 inch 304 stainless steel, the Tilt Base is virtually indestructible and conveniently mounts to the same mast that you use for the antenna and radial plate. The Tilt Base is great for installations that need to accommodate CC&R, or for taking down antenna during severe weather.



Use DXE-TB-3P for Hustler® BTV models, DXE-TB-4P for specific Butternut®, GAP, Hy-Gain and DX Engineering Verticals, and use DXE-TB-6P for HyGain 14AVQ. The DXE-TB-4P Tilt Base is intended for quarter-wave verticals that have a minimum of 1/2 inch and a maximum of 2 inch OD base, weigh up to 20 pounds, and have a height of no more than 28'. Vertical antennas up to 43' must be adequately guyed, and extra precautions should be taken when raising or lowering the antenna to avoid undue lateral stress on the tilt mechanism. If you are mounting your Tilt Base to a ground mounted pipe, you will need two DXE-SSVC-2P V-Bolt Saddle Clamps to complete the installation.

DXE-TB-3P	Tilt Base Kit for Hustler BTV Model Antennas	$61.99
DXE-TB-4P	Tilt Base Kit for Antennas Other Than Hustler BTV	$99.96
DXE-TB-6P	Tilt Base Kit for Hy-Gain 14AVQ	$96.98
DXE-TB-7P	Tilt Base for COMTEK 40VA and 30VA Verticals, Kit	$106.98
DXE-TB-8P	Tilt Base for COMTEK 20VA Verticals	$106.98
DXE-AOK-TB1193	Wing Nut No-Tools Kit, Pack of 2	$8.99
DXE-SSVC-2P	V-Saddle Clamp, 1" to 2" OD Applications	$12.49

DX ENGINEERING

Vertical Antenna Matching Network

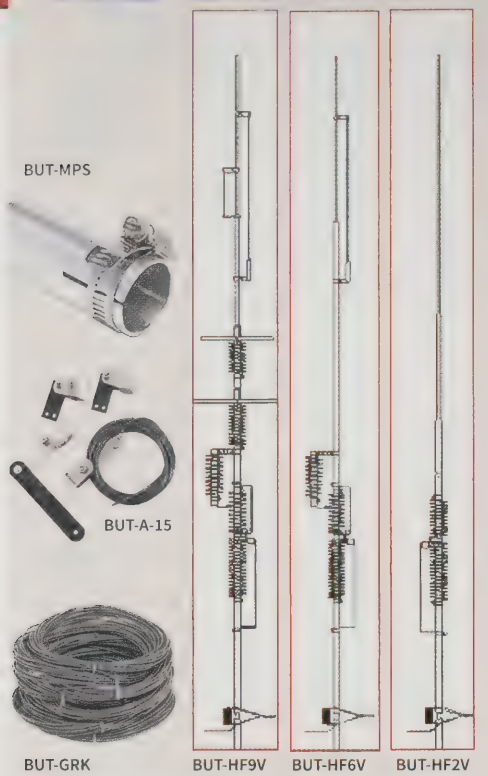
Without a means of adjusting feedpoint impedance, achieving the best SWR on 160, 80 and 40 meters on some vertical antenna installations with excellent radial systems may be difficult. The Vertical Antenna Matching Network lets you tune a low impedance antenna to the minimum SWR in the user-selected portion of the band without affecting operation on the other, higher frequency bands (if applicable). This Vertical Antenna Shunt Matching Network can be used on resonant 160 meter Inverted-L and Tee-Top wire verticals. The #12 AWG coil wire is tin-nickel plated for high power handling, corrosion resistance, ease of soldering and long-term reliability, even outdoors.

DXE-VMN-1	Vertical Antenna Matching Network	$79.99

DX Engineering Coil Tap Clips

These silver-plated Coil Tap Clips provide adjustable attachment points to uninsulated coils including homebrew, Miniductor™ and Airdux™. They also are useful for making flying connections to uninsulated wire in non-RF applications without soldering or cutting. These clips will accommodate wire sizes from #20 to #10 AWG.

DXE-CLIP-P	Coil Tap Clips, Pack of 5	$9.99



Vertical Antennas

Butternut Antennas have a well-earned reputation for performance and long life. They are easy to erect and tune, and will last many years. No lossy traps are used in these internationally acclaimed antenna designs.

BUT-HF9V	9-Band, 80/40/30/20/17/15/12/10/6M;	**$604.99**
BUT-HF6V	6-Band, 80/40/30/20/15/10M;	**$522.99**
BUT-HF2V	2-Band, 80/40M	**$374.99**
BUT-MPS	Mounting Post Sleeve for HF6V/HF9V	**$23.99**
BUT-GRK	Ground Radial Kit for HF2V/HF6V/HF9V	**$110.99**
BUT-A-17-12	17/12 Meter Kit for HF6V, 277-10	**$75.99**
BUT-A-15	15M Resonator Kit for HF6V/9V	**$67.99**
BUT-A-6	6 Meter Kit for HF6V, 277-12	**$24.99**
BUT-290-06A	Replacement 67 pF Capacitor;	**$43.99**
BUT-290-05A	Replacement 200 pF Capacitor and Hardware Pack	**$48.99**
BUT-290-07A	Replacement 67 pF and 200 pF Capacitor and Hardware Pack;	**$87.99**
BUT-290-11	Capacitor Bracket Replacement Kit, 80/40/17/12M	**$29.99**
BUT-290-12	Tube B1 with Insulator	**$44.99**
BUT-290-13	Replacement 30M Bracket and Capacitor Kit	**$79.99**
BUT-290-14	Hardware Pack for HF2V	**$13.99**
BUT-290-15	Hardware Pack for HF6V/HF9V;	**$18.99**
BUT-290-16	Insulator Replacement Kit for HF2V/HF6V/HF9V, Set of 2	**$35.99**

Overview | Documentation | Suggested Parts | Show All

Related Products: Parts that may improve the performance or installation

Suggested Parts- Sometimes Ham Radio gear requires special accessories like hookup cables and brackets to complete an installation. Visit DXEngineering.com and check out the "Suggested Parts" tab on certain products to see what you'll need to get up and running.

EA6J 6 Meter Vertical Antenna

Based on the time-tested J-pole design, EAntenna's EA6J delivers 2 dBi gain and a 2 MHz bandwidth at 2:1 SWR. At just about 17' high, its a compact and cost-effective solution for 6 meter stations. It handles full legal limit power and will survive winds up to 80 mph.

EAN-R2010802	EA6J 6 Meter Vertical Antenna	**$145.99**

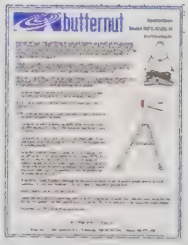
BUT-RMK-II

Accessory Kits for Butternut HF Verticals

DX Engineering offers upgrade and accessory components to increase the versatility of its Butternut HF Vertical line. You can also find parts for your DX Engineering Butternut HF Vertical online at DXEngineering.com.

BUT-RMK-II	Roof-Mount Kit for HF6V/HF9V	**$240.99**
BUT-TLK	160/80M Top-Loading Kit for HF2V	**$57.99**
BUT-STR-II	Stub Tuned Radiator Kit for HF6V/HF9V	**$190.99**

As part of our commitment to keep the "Classic" Butternut Verticals and their accessories available, DX Engineering has been working on publishing new manuals. These new Butternut manuals have expanded information, better assembly pictures, troubleshooting tips and all of the latest information to help you get your Butternut Vertical on the air quickly.



You can view or download the new manuals online at DXEngineering.com

Vertical Antennas

MA160V 160 Meter 36' Vertical Antenna with Radial Kit

This antenna is a compact, efficient vertical designed for working top-band DX from an average-size house lot. A low launch angle and deep overhead null combine to pull in distant stations while rejecting local QRM.

CSH-MA160V	160M Vertical Antenna	**$299.95**

R6000 20-6 Meter 6-Band, 19' Vertical Antenna

This is a 20 through 6 meter, no-ground radial antenna. No traps are used on 15, 10 and 6 meters for maximum efficiency and power handling.

CSH-R6000	6-Band Vertical Antenna	**$429.95**

R8 40-6 Meter 8-Band, 28.5' Vertical Antenna

This multi-band design provides 8-band coverage encompassing the 40, 30, 20, 17, 15, 12, 10 and 6 meter bands. The antenna provides 360 degree (omni) coverage on the horizon and a low radiation angle in the vertical plane for a better DX.

CSH-R8	8-Band Vertical Antenna	**$539.95**
CSH-R8GK	3-Point, Non-Conductive Guy System for R8	**$59.95**

R9 Nine-Band Vertical Antenna

Covering the 80-6 meter bands, the R9 is a versatile and efficient multi-band resonant design. It is 28.5 feet tall, handles full legal limit power (PEP) and requires no radials. See DXEngineering.com for more details.

CSH-R9	R9 Nine-Band Vertical Antenna	**$639.95**

Cushcraft Vertical Antennas

CSH-MA8040V	80/40 Meter Dual-Band, 27'	**$319.95**
CSH-MA5VA	20-10 Meter 5-Band, 14.7'	**$299.95**
CSH-MA6VA	20-6 Meter 6-Band, 14.7'	**$339.95**
CSH-AR10	10 Meter Ringo, 3 dB, 17.6'	**$109.95**
CSH-AR6	6 Meter FM Ringo, 3 dB, 10'	**$99.95**
CSH-AR2	2 Meter FM Ringo, 3 dB, 3.9'	**$64.95**
CSH-ARX2	2 Meter Ringo Ranger, 5 dB, 12.5'	**$79.95**
CSH-ARX2B	2 Meter Ringo Ranger II, 7 dB, 14'	**$109.95**
CSH-ARX220B	220 MHz Ringo Ranger II, 7 dB, 9';	**$114.95**
CSH-AR270	2 Meter/440 MHz Ringo, 3/5.5 dB, 3.75'	**$129.95**
CSH-AR270B	2 Meter/440 MHz Ringo, 5.5/7.5 dB, 7.7'	**$189.95**
CSH-AR450	440 MHz FM Ringo, 3 dB, 1.4'	**$47.95**
CSH-ARX450B	440 MHz Ringo Ranger II, 7 dB, 5';	**$99.95**

Patriot Vertical Antennas

hy-gain

Take advantage of the sunspot cycle with the low takeoff angle of Hy-Gain's Patriot Vertical Antennas. These three antennas feature efficient end-loading coils and capacity hats to give you optimum performance on several bands. They handle 1,500 watts, feature automatic band switching and each band is individually tunable. Their sleek, radial-less design means a low wind surface area and small footprint, so you can mount them easily on your deck, roof or patio. Discover the complete specs on each antenna at DXEngineering.com.

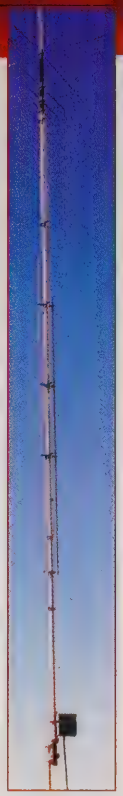
HGN-AV-620	20, 17, 15, 12, 10 and 6 Meter Vertical, 22.5'	**$349.95**
HGN-AV-640	40, 30, 20, 17, 15, 12, 10 and 6 Meter Vertical, 25.8'	**$449.95**
HGN-AV-680	80, 40, 30, 20, 17, 15, 12, 10 and 6 Meter Vertical, 26'	**$539.95**

AV-18HT Hy-Tower 5-Band, 50 Foot Vertical

The AV-18HT Hy-Tower is an omni-directional, self-supporting vertical radiator which operates on 80 through 10 meters. 160 meter operation is possible with the addition of a loading coil. The use of stub decoupling systems allows automatic band switching on 80, 40, 20, 15 and 10 meters. The stubs isolate various sections of the vertical antenna so that an electrical 1/4-wavelength (or odd multiple of 1/4-wavelength) exists on all bands. On 20 meters, the 80 meter section acts as a 3/4-wave radiator.

The tilting base of the Hy-Tower allows the antenna to be completely assembled on the ground before it is raised into position. It is light enough for one person to assemble and for two people to erect. The Hy-Tower is supplied with stainless steel hardware.

Maximum Power: 1 kW AM, 2 kW PEP. Overall Height: 53 feet.



HGN-AV-640 HGN-AV-18HT

The Hy-Tower is drop-shipped via motor freight directly from Hy-Gain to you. DX Engineering will e-mail you a shipping quote when you place your order.

HGN-AV-18HT	Hy-Tower 80, 40, 20, 15 and 10 Meter Vertical	**$959.95**
HGN-MK-160A	160 Meter Add-On Kit for AV-18HT	**$119.95**

Super Penetrator 12/10 Meter Vertical Antenna

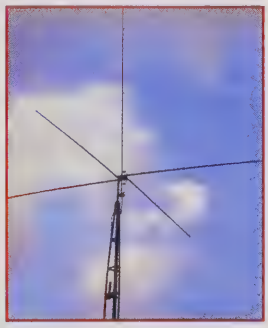
hy-gain

The legend from the 1970s is back! This fantastic, true full-size 5/8-wave vertical antenna from Hy-Gain is the only antenna of its type to survive the test of time.

Be ready for 10 meter activity at any time! This antenna will help you to collect more 10-10 numbers, work more DX and make Ham radio more fun.

The SPT-500 is 22 feet, 9.5" tall and is specifically designed to accept AM/FM, SSB, CW and digital signals with low loss. It handles 1,500 watts.

HGN-SPT-500 12/10M Vertical Antenna ... **$149.95**



HUSTLER

6 Meter VHF Monoband Vertical Antenna

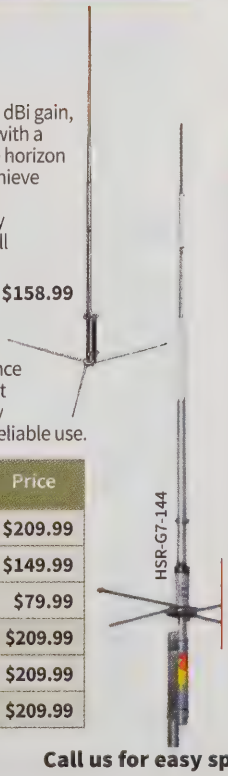
It's an excellent 6M, 5/8-wave vertical antenna that delivers up to 6.4 dBi gain, which makes it perfect for SSB operation. It's got a full-size radiator with a lower takeoff angle, which means the power is directed closer to the horizon where you want it. Use the tuned radials at the antenna's base to achieve a bandwidth over 4 MHz and a SWR of 2:1 or less. This antenna also has a shunt-fed matching system, which drains static to dramatically reduce unwanted noise. The antenna stands about 8 feet tall and will handle 300 watts.

HSR-G-3754 6M VHF Monoband Vertical Antenna **$158.99**

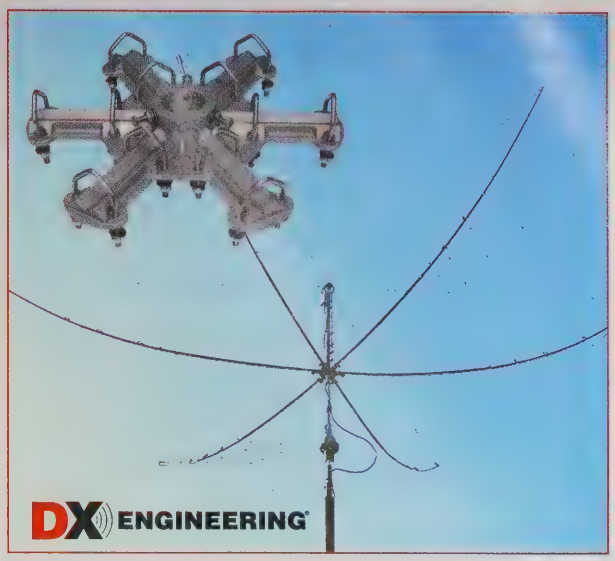
G-Series Vertical Antennas

Hustler's acclaimed G-Series antennas deliver impressive performance in easy-to-assemble packages. These antennas represent the perfect union of price, coverage and results. They're made from high-quality materials, so they stand up to Mother Nature and give you years of reliable use.

Part Number	Band(s)	Gain	Power Handling	Height	Price
HSR-G7-144	2M	7.0 dBd	600 W	15.33'	**$209.99**
HSR-G6-144B	2M	6.0 dBd	600 W	9.75'	**$149.99**
HSR-G3-144	2M	3.0 dBd	200 W	7.42'	**$79.99**
HSR-G7-220	1.25M	7.0 dBd	1,000 W	9.75'	**$209.99**
HSR-G6-440	70cm	6.0 dBd	100 W	7.25'	**$209.99**
HSR-G6-270R	2M/70cm	6.0 dBd	100 W	7.50'	**$209.99**



HSR-G7-144



HEXX Beam Antenna Kits

HEXXAGONAL DX ENGINEERING BEAM

DX Engineering's Hexxagonal Beam Mark II antenna and related kits are based on the G3TXQ design with a broadband, u-shaped reflector. That means you'll have better coverage of the 20, 17, 15, 12 and 10 meter bands with low SWR. These packages are your ticket to a versatile, small and lightweight directional HF beam antenna.

DX Engineering's design offers better gain and improved front-to-back performance with a lower SWR, and it uses our patented* stainless/PTFE rigid balanced feedpoint system. The feedpoint system provides balanced, 50 Ω connections to the wire elements, eliminating the need for special waterproofing.

You can select from two complete kits for either single or multi-band operation, or you can purchase each component separately to custom build or retrofit an antenna to your unique specifications. *US Patent D624,060

DXE-HEXX-5TAP-2	20/17/15/12/10M 5-Band Hexxagonal Beam Antenna Kit, Mark II	**$791.96**
DXE-HEXX-1TAP-2	Single Band, Pre-cut for 20M, Total Antenna Kit, Mark I	**$509.97**
DXE-HEXX-5FFP	5-Band Rigid Feedpoint System	**$209.99**
DXE-HEXX-1HBP	Hexx Hub Kit	**$129.99**
DXE-HEXX-5WRP-2	5-Band Pre-Cut Wire Element and Guide Kit, Mark II	**$191.99**
DXE-HEXX-1WRP-2	Single-Band Wire Element and Guide Kit, Mark II	**$119.99**
DXE-HEXX-1SCP-2	Spreader and Center Post Kit, Mark II	**$254.99**
DXE-HEXX-SR-2	Hexx Beam Single Spreader Replacement Kit	**$49.99**

hy-gain

AV-12AVQ, AV-14AVQ and AV-18AVQII Multi-Band Trap Verticals

The 3-band Hy-Gain AV-12AVQ, 4-band AV-14AVQ and 5-band AV-18AVQII use the same trap design as the famous Hy-Gain Thunderbird beams. Separate air dielectric Hy-Q traps with oversize coils give superb stability and quarter-wave resonance on all bands. Their 18 foot overall length fits well in most urban environments. The 14-AVQ covers the 40, 20, 15 and 10 meter bands while the 18-AVQII adds the 80 meter band to the mix.

All Hy-Gain multi-band vertical antennas are entirely self supporting—no guys required. They offer remarkable DX performance with their extremely low angle of radiation and omnidirectional pattern.

Hy-Gain vertical antennas handle 1,500 watts PEP SSB, have low SWR and automatic bandswitching. Heavy-duty, slotted, tapered swaged aircraft quality aluminum tubing with full circumference compression clamps is used for radiators.

All Hy-Gain verticals feature a two year limited warranty.

HGN-AV-12AVQ	3-Band Trap Vertical, 20, 15 and 10 Meter Bands	**$139.95**
HGN-AV-14AVQ	4-Band Trap Vertical, 40, 20, 15, 10 Meter Bands	**$189.95**
HGN-AV-18AVQII	5-Band Trap Vertical, 80, 40, 20, 15, 10 Meter Bands	**$259.95**

AV-14AVQ AV-18AVQII

Call us for easy special orders!

DXE-DVA-160B-P

DX ENGINEERING

DXE-EC-DVA

Dual Vertical Array Systems

The Dual Vertical Array is an easy-to-install two-element vertical antenna phasing system that offers great HF or 6M performance. It uses a new design to increase array efficiency by eliminating the wasteful dump port found on previous systems. These array relay units can handle 2 kW, with a front-to-back over 20 dB and up to 3 dB gain over a single vertical.

The Control Console is a 3-direction pattern selector that uses LEDs as directional indicators. The console requires 13.8 Vdc and uses 3-conductor 20 AWG control line. The EC-DVA is included with the Dual Vertical Array Systems and also available separately if you'd like to build your own custom control system.

The DX Engineering Dual Vertical Array Systems are available for the Amateur Radio bands below. Enter "DXE Dual Vertical" at DXEngineering.com for more details.

DXE-DVA-160B-P	Dual Vertical Array System, 160M	**$454.98**
DXE-DVA-80B-P	Dual Vertical Array System, 80M	**$439.98**
DXE-DVA-40B-P	Dual Vertical Array System, 40M	**$439.98**
DXE-EC-DVA	Control Console	**$124.99**

Other packages available for 60M, 30M, 20M, 17M, 15M, 12M and 10M ..... from **$439.98**
By special order. See DXEngineering.com and enter "DXE Dual Vertical" for details.

ACB Four-Square Array Hybrid Systems for 4-Element Vertical Arrays

COMTEK SYSTEMS

COMTEK uses a time tested design to produce advanced antenna systems. These Four-Square Array Systems are affordable, simple to install, and easy to use. A Four-Square array consists of four vertical elements fed in a phase relationship and power ratio to obtain a directional pattern.

COMTEK 4-element vertical arrays provide great directivity. We offer the ACB for each Amateur band from 160 meters to 10 meters. The ACB is band specific, you cannot use an 80 meter ACB for any band other than 80 meters.

Power Supply/Switch Control

- Custom USA-made switch
- Current limiting resistor protection for each LED
- Chassis and cover custom manufactured to COMTEK specifications
- Label for recording favored directions
- Compact size: 2" H x 6.25" W x 5" D

90 Degree Hybrid-Relay Matrix

- 2 kW rating for Amateur SSB and CW
- 15 amp gold plated contact relays with dust covers
- PTFE silver stranded wire over fiberglass tape-wound toroids
- Balanced temperature, frequency, and voltage stable capacitors
- Double-sided printed circuit board
- MOVs for lightning surge protection with RF bypass caps
- Brushed aluminum Z-chassis and cover with riveted seams
- Includes mounting clamp

COM-ACB-20-A

COM-ACB-160-A	Hybrid Phased Array Four-Square System, 160M	**$485.98**
COM-ACB-80-A	Hybrid Phased Array Four-Square System, 80M	**$467.98**
COM-ACB-40-A	Hybrid Phased Array Four-Square System, 40M	**$456.98**
COM-ACB-30-A	Hybrid Phased Array Four-Square System, 30M	**$456.98**
COM-ACB-20-A	Hybrid Phased Array Four-Square System, 20M	**$447.98**
COM-ACB-15-A	Hybrid Phased Array Four-Square System, 15M	**$453.98**
COM-ACB-10-A	Hybrid Phased Array Four-Square System, 10M	**$461.98**
COM-ACB4A	ACB-4A Series Four-Square Control Console	**$139.99**

DXE-TFS4-40B-P

DX ENGINEERING

Transmit Four-Square Hybrid Controller— 4 Directions plus Omni

DX Engineering TFS4 Series B Transmit Four-Square Systems bring together the highest level of engineering excellence with the practical realities of operator convenience and ease of installation. They're available for the 160, 80 and 40 meter bands, and can be easily dropped-in to your quarter wave spaced vertical 4-antenna array for optimum directional control.

The systems allow you to receive or transmit with 5.5 dB gain in any one of four directions with a 20+ dB front-to-back ratio for interference reduction from unwanted directions. You can also switch to a single omni-directional pattern with a push of a button. That means you'll be able to listen "all-around," unhindered by pattern nulls, and then select the best direction for signal reception and noise rejection.

The TFS4 Series B Transmit Four-Square Systems are designed for use with a four monoband vertical antennas spaced at the corners of a square that are a one quarter wavelength on a side. The vertical antennas must be ungrounded and resonant in the desired band, and should be directly base-fed by the coaxial cable phasing lines from the centrally located controller. DX Engineering has vertical antennas that are well suited for this application. A properly designed and installed radial system is necessary for top antenna performance.

We recommend our optional Q75-series quarter wavelength cables. They're electronically pruned to a precise electrical length tailored to your operating frequency. The cables are terminated with hand-soldered silver-PTFE PL-259 connectors and weather-sealed with shrinkable tubing. Finally, each cable is tested for high voltage breakdown for maximum reliability and power handling. Since the transmit power is divided by the controller, the coaxial cable can handle maximum power with ease.

If you already have a four-square array with a hybrid controller and would like improved performance and add the omni feature, the DX Engineering TFS4 Series B Transmit Four-Square Systems are a simple upgrade. BCD logic switching allows for the use of a 4-wire control cable to perform the necessary switching functions when powered by the included DXE-CC-4SQR control console.

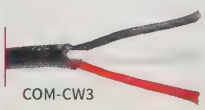
- Classic Hybrid design for easy installation
- 5 kW CW power rating for high reliability
- Hot switching lock-out feature disables amplifier while switching
- Simple upgrade for COMTEK SYSTEMS four-square array
- Proven high performance DX Engineering RF relays
- RF shielded, high impact thermoplastic cover offers unique protection
- Relays cycle during power-on to ensure clean contacts

DXE-TFS4-160B-P	160 Meter Four-Square Controller with Control Console	**$704.98**
DXE-TFS4-80B-P	80 Meter Four-Square Controller with Control Console	**$684.98**
DXE-TFS4-40B-P	40 Meter Four-Square Controller with Control Console	**$674.98**

The Control Console is also available separately.

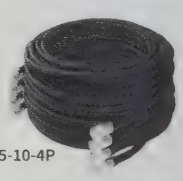
DXE-CC-4SQR	Transmit Four-Square Control Console	**$219.99**

DX Engineering Customer Support personnel will be happy to help you select all the components necessary for a complete installation.



COM-CW3

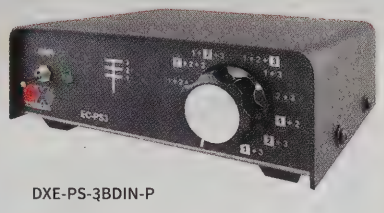
COM-CW4



DXE-Q75-10-4P

Hybrid Array Cables & Accessories

DXE-Q75-160-4P	Hybrid Array Cable, 160M, DXE-11U, PL-259 Connectors	**$491.80**
DXE-Q75-80-4P	Hybrid Array Cable, 80M, DXE-11U, PL-259 Connectors	**$359.80**
DXE-Q75-40-4P	Hybrid Array Cable, 40M, DXE-11U, PL-259 Connectors	**$279.80**
DXE-Q75-30-4P	Hybrid Array Cable, 30M, DXE-11U. PL-259 Connectors	**$255.80**
DXE-Q75-20-4P	Hybrid Array Cable, 20M, DXE-11U, PL-259 Connectors	**$247.80**
DXE-Q75-17-2P	Hybrid Array Cable, 17M, DXE-11U, PL-259 Connectors	**$121.90**
DXE-Q75-15-4P	Hybrid Array Cable, 15M, DXE-11U, PL-259 Connectors	**$239.80**
DXE-Q75-10-4P	Hybrid Array Cable, 10M, DXE-11U, PL-259 Connectors	**$231.80**
COM-CW3	Control Cable, 3-20 AWG Wires, Black PVC Jacket ..... per foot	**$0.25**
COM-CW3-1000	COM-CW3 Control Cable, 1,000' Spool	**$197.99**
COM-CW4	Cable, 4-Conductor ..... per foot	**$0.45**
COM-CW4-500	Cable, 4-Conductor, 500' Spool	**$165.99**
COM-VFA-1	Vertical Feedpoint Assembly	**$16.99**
COM-VFA-4	Vertical Feedpoint Assembly, Set of 4	**$67.96**
DXE-RADP-3	Stainless Steel Radial Plate with 20 Bolt Sets	**$57.99**
DXE-SSVC-2P	V-Saddle Clamp, Fits 1" to 2" Tube	**$12.49**



DXE-PS-3BDIN-P

DX ENGINEERING

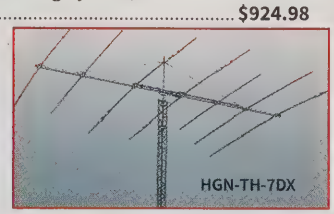
PRO-STACK Three Antenna Phasing Systems

DX Engineering's PRO-STACK phasing systems allow you to combine identical Yagi, Log Periodic Beam or quarter-wave vertical for enhanced performance. The systems promote broadband coverage of the 160-10M bands in a dozen in- and out-of-phase antenna configurations. This system provides impressive nulls (up to 40 dB!), so you can ward off unwanted signals and snag that rarest-of-rare QSO.

The system consists of a relay unit and control console; each component is also available separately. PRO-STACK systems will easily handle the full legal limit and are powered by any 12 Vdc source. Nine-conductor control cable is required for operation. Choose your system based on the connector type you prefer: 7-16 DIN, SO-239, or type N. Use keywords "PRO-STACK" at DXEngineering.com for the details.

DXE-PS-3B-P	PRO-STACK Three Antenna Phasing System, SO-239 Connectors	$824.98
DXE-PS-3BDIN-P	PRO-STACK Three Antenna Phasing System, 7-16 DIN Connectors	$924.98

hy-gain



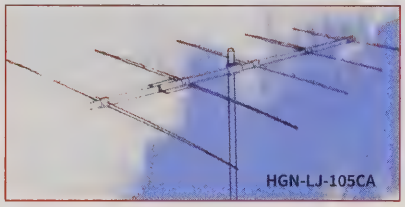
HGN-TH-7DX

Tri-Band HF Beam Antennas

If you want to get active on the 20, 15 and 10 meter bands, Hy-Gain's TH series antennas are an excellent choice. These durable antennas offer excellent gain in an efficient package. You can select the right-sized antenna for your specific installation, whether it's on a rooftop or a tower. These lightweight, multi-element Yagis also feature aluminum tubing for reduced stress on your rotator. Visit DXEngineering.com for the complete specs.

HGN-TH-3JRS	Tri-Band Yagi, 3-Element, 600 W, 8 dBi Gain	$379.95
HGN-TH-3MK4	Tri-Band Yagi, 3-Element, 1,500 W, 8 dBi Gain	$499.95
HGN-TH-5MK2	Tri-Band Yagi, 5-Element, 1,500 W, 9 dBi Gain	$789.95
HGN-TH-7DX	Tri-Band Yagi, 7-Element, 1,500 W, 9.6 dBi Gain	$899.95

HGN-LJ-204BA



HGN-LJ-105CA

Long John Yagi Antennas

Perfect for the DXer or contester, these HF beam antennas from Hy-Gain are factory-tuned to offer no-compromise performance on a specific band. These antennas also work quite well in a stacked configuration. Designed to fit a 2" OD mast, they easily handle 1,500 watts and feature full-size elements. The antennas' aluminum tubing and stainless steel hardware contributes to excellent all-weather durability. For optimal performance, DX Engineering recommends a 50 Ω balun be installed at the feedpoint.

Part Number	Band(s)	Gain	Boom Length	Max. F/B	Number of Elements	Price
HGN-LJ-103BA	10M	7.5 dBi	8'	24 dB	3	$179.95
HGN-LJ-105CA	10M	10.7 dBi	24'	36 dB	5	$289.95
HGN-LJ-153BA	15M	7.9 dBi	12'	25 dB	3	$229.95
HGN-LJ-155CA	15M/12M	9.7 dBi	26'	25 dB	5	$429.95
HGN-LJ-203BA	20M	7.3 dBi	17'	23 dB	3	$329.95
HGN-LJ-204BA	20M/17M	8.2 dBi	26'	28 dB	4	$539.95
HGN-LJ-205CA	20M/17M	8.7 dBi	34'	30 dB	5	$769.95

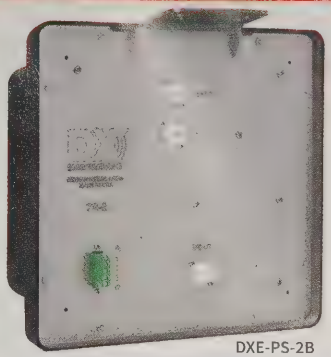
HF Beam Antenna

Start hunting DX on 20, 15 and 10 meter bands with this high-performance and high-efficiency antenna. The antenna has a small turning radius, perfect for operators seeking a legal-limit solution for a directional gain antenna and boasts 7.5 to 8.8 dB gain. With an impressive 2:1 SWR or less across most of its operating range, you still get excellent bandwidth. For more versatility, add the optional 30 or 40 meter kit.

hy-gain

HGN-EXP-14	HF Beam Antenna	$629.95
HGN-QK-710	Add-On Kit for 30 or 40 Meters	$179.95

DX ENGINEERING



DXE-PS-2B

DXE-PS-2B PRO-STACK Broadband Two Antenna Phasing System

The PS-2B PRO-STACK combines two identical Yagi, log periodic or vertical antennas in a phased arrangement. It is a broadband system that operates from 160 through 10 meters with no need for coaxial delay lines. The PS-2B can be used in applications requiring these four basic antenna feed selections (impedance matching automatically changes when any antenna port is disconnected).

- Both antenna ports in-phase (default)
- Both antenna ports out-of-phase
- Antenna port 1 only
- Antenna port 2 only

Control Console

Additional Applications

- **Scalable Multi-Antenna Systems**-The PS-2B easily adapts to larger arrays. For example, four stacked Yagis can be combined by creating two sets of two and using a third PS-2B to combine the first two sets.
- **Phased Verticals**-The system can feed three vertical antennas in a four-pattern array. In this arrangement, the three antennas are individual quarter-wave resonant antennas. The center #2 passive element must be directly grounded at all times. Elements #1 and #3 are then fed in various phase relationships.

Additional Features

- 50 Ω system—switched by applying 12-15 volts DC to three control wires
- Power handling up to 5 kW
- High-impact RF-shielded cover
- High RF-tolerant, silver-PTFE UHF connectors
- Proven high-performance DX Engineering RF Relays
- Safe 12-volt relay operation
- MOV surge protection on control lines
- RoHS-compliant

DXE-PS-2B	PRO-STACK Broadband Antenna Switch	$538.99
DXE-PS-2B-P	PRO-STACK Two Antenna Phasing System, SO-239 Connectors	$663.98

The Control Console is also available separately.

DXE-EC-PS2	PRO-STACK Control Console	$124.99

Note: Information on the appropriate separation between stacked Yagi antennas in versatile, high-performance array is discussed fully in the ARRL Antenna Book. Generally, stacked Yagi antennas are separated vertically by greater than 1/2-wavelength free space.

HF Yagi Antennas

CSH-A3S

Precisely tuned high-power traps, carefully selected element lengths and proper spacing combine to make Cushcraft's Yagis and Beams the preferred antennas for your HF work. High-gain, low SWR and wide bandwidth keep the contacts coming in. Gain figures are based off the highest peak rating; find comprehensive specs at DXEngineering.com.

U-bolts, clamps and hardware are included. Optional add-on kits are available for 30 or 40 meter coverage.

Part Number	Band(s)	Gain	Elements	Boom	Price
CSH-TEN3	10M	8.0 dBi	3	8'	$299.95
CSH-A3WS	17/12M	8.0 dBi	3	14'	$499.95
CSH-A3S	20/15/10M	8.0 dBi	3	14'	$599.95
CSH-A4S	20/15/10M	8.9 dBi	4	18'	$699.95
CSH-X7	20/15/10M	13.0 dBi	7	18'	$1,099.95
CSH-MA5B	20/17/15/12/10M	5.3 dBi	2	9.75'	$499.95
Add-On Kits					
CSH-X740	40M	Add-On Kit for CSH-X7			$369.95
CSH-A744	40/30M	Add-On Kit for CSH-A4, A4S			$199.95
CSH-A103	30M	Add-On Kit for CSH-A3WS			$199.95

XM240 Big Thunder 40M Monoband Antenna

Cushcraft's XM240 monobander utilizes rugged Big Thunder and high strength aluminum tubing that gives the antenna outstanding wind survivability. Phillystran boom trusses provide extra boom stability. The feed system is a 50 Ω direct feed; VSWR is flat across the band. A high-power 1:1 balun is included. Excellent front-to-back ratio and gain makes the XM240 the right choice for both DX and stacking.

CSH-XM240	40M, 2-Element Beam, 6 dB, 22' Boom	$999.95

FREE standard shipping for orders over $99. See pg. 76 for details.

DX ENGINEERING

Skyhawk™ and Skylark Antennas.

The legendary Skyhawk and Skylark antennas have been mainstays of international DXers and distinguished HF contesters for years. Now, both antennas have been brought under the DX Engineering manufacturing umbrella. That means these highly regarded antennas are built to DX Engineering's unflinching quality standards. DX Engineering also carries all of the service parts you'll need to keep these antennas operating efficiently.

DXE-2X7

Skylark™ Dual-Band Yagi

You get almost 8 dB gain on the 17 and 12 meter bands with the DX Engineering Skylark. The antenna also provides an SWR under 1.3 to 1 across each band, plus a front-to-back over 20 dB. It handles the legal limit plus! The Skylark's simple design eliminates any moving parts, which contributes to all-weather reliability. Aluminum elements and stainless steel hardware also promote corrosion resistance. With a boom length of just 16 feet, the Skylark can handle winds up to 90 mph. A feedpoint choke is included.

DXE-2X7 Skylark Dual-Band Yagi **$850.00**

DXE-3X10

Skyhawk™ Yagi Antenna

With over 7 dB gain on the 20 and 15 meter bands, plus over 9 dB on the 10 meter band, the DX Engineering Skyhawk has become the choice of experienced HF DXers. A trap-free design ensures the best bandwidth possible. The use of aluminum and stainless steel hardware keeps the antenna's overall weight down to around 75 pounds. The Skyhawk has a 23 foot boom. It is easy to build and tune, and comes with a 2,500 watt feedpoint choke.

DXE-3X10 Skyhawk Yagi Antenna **$1,199.99**

OptiBeam HF and VHF Directional Antennas

OPTIBEAM

DX Engineering is proud to be the exclusive North American retailer of directional antennas from OptiBeam—a company widely recognized for its high-performance, handcrafted and German-engineered antennas used by Hams around the globe. Extensively tested and proven in real-world operation, OptiBeam directional mono-band and multiband Yagi and log cell Yagi antennas deliver the highest possible gain, cleanest radiation patterns, and optimum band coverage, efficiency and power handling without compromise. DX Engineering offers all OptiBeam Amateur Radio antenna models. Get yours today and be prepared to take your station to an elite level. Popular models are in stock and ready for fast shipment. For full details, enter "OptiBeam" at DXEngineering.com.

Other features include:

- Built by experienced Hams with the needs of Amateur Radio enthusiasts in mind
- Computer designed, optimized and tested extensively to confirm that computer models are matched by real-world performance
- Finely constructed to withstand the harshest conditions using the very best materials
- Extraordinary electrical properties, including the highest efficiency, optimum band coverage, nearly constant gain and unchanging radiation pattern across the band, and low SWR
- Consistent electrical characteristics under all weather conditions
- Advanced physical properties, including proper balance and high stability
- Designed for easy building
- Antennas arrive in subassemblies with every part carefully sorted, clearly labeled, and well packed for worry-free shipment and straightforward installation

DBO-OB6-6-P

DBO-OB5-6-P

OptiBeam VHF Antennas

OptiBeam's classic Yagis for the 6 meter band combine pure performance, strength and visual appeal to deliver the ultimate VHF beam for your station. As with all OptiBeam directional antennas, you can take advantage of these exclusives: specially configured, stable and properly shaped element holders; robust square and round booms with finely constructed element transitions; and perfectly aligned elements secured against torsion with minimal sag for a stellar look. All OptiBeam antennas are solidly built with high quality aluminum alloys, UV stable synthetic parts, and stainless steel hardware.

DBO-OB6-6-P 6 Meter, 6 Elements, 20.14' Boom Length, w/Balun..... **$687.98**

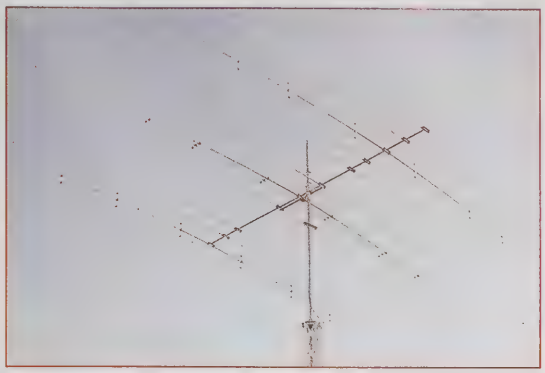
DBO-OB5-6-P 6 Meter, 5 Elements, 14.57' Boom Length, w/Balun..... **$587.98**

DX Engineering "-P" part numbers indicate balun included. Balun ships separately.

OptiBeam HF Directional Antenna Systems

DX Engineering carries the full lineup of world-famous OptiBeam HF directional antennas, built by Hams for Amateur Radio enthusiasts who demand lasting quality and proven performance. Available rotary dipole, Yagi and log cell Yagi antennas cover an impressive range of configurations and band coverages. If you're looking to give your station an optimal DXing and Contesting advantage, an OptiBeam antenna makes a sound choice and a wise long-term investment. All antenna systems come with a high-power 1:1 or 1:2 balun with a UHF female connector for your 50-ohm coaxial cable. DX Engineering "-P" part numbers indicate balun included. Balun ships separately.

System Part Number	Description	Band(s)	Elements	Length	Price
DBO-OB1-80PLUS-P	Rotary Dipole	80 SSB-CW	1 End-Loaded	57.74'	**$2,510.98**
DBO-OB1-80-SSB-P	Rotary Dipole	80 SSB Only	1 End-Loaded	57.74'	**$1,738.98**
DBO-OB1-40-P	Rotary Dipole	40	Single	48.23'	**$730.98**
DBO-OB1-4030-P	Rotary Dipole	40/30	Single/Split	48.23'	**$936.98**
DBO-OB1-30-P	Rotary Dipole	30	Single	30.32'	**$647.98**
Part Number	**Description**	**Band(s)**	**Elements**	**Boom Length**	**Price**
DBO-OB10-3W-P	Yagi	20/17/15	10	19.23'	**$1,763.98**
DBO-OB11-3-P	Yagi	20/15/10	11	20'	**$1,623.98**
DBO-OB11-5-P	Yagi	20/17/15/12/10	11	19.69'	**$2,389.98**
DBO-OB1210-P	Yagi	12/10	7	33.14'	**$1,962.98**
DBO-OB12-4-P	Yagi	40/20/15/10	12	24.93'	**$3,168.98**
DBO-OB12-4W-P	Yagi	40/20/17/15	12	26.57'	**$3,377.98**
DBO-OB12-6-P	Yagi	40/20/17/15/12/10	12	20.01'	**$3,168.98**
DBO-OB13-6-P	Yagi	40/20/17/15/12/10	13	25.92'	**$3,775.98**
DBO-OB1510-P	Yagi	15/10	10	45.60'	**$2,740.97**
DBO-OB15-7-P	Yagi	40/30/20/17/15/12/10	15	21.98'	**$3,685.98**
DBO-OB16-3HD-P	Yagi	20/15/10	16	33.14'	**$2,584.98**
DBO-OB16-5-P	Yagi	20/17/15/12/10	16	33.14'	**$3,466.98**
DBO-OB17-4-P	Yagi	40/20/15/10	17	39.04'	**$4,452.98**
DBO-OB18-6-P	Yagi	40/20/17/15/12/10	18	39.04'	**$5,155.98**
DBO-OB21-3-P	Yagi	20/15/10	21	46.26'	**$3,188.98**
DBO-OB2-30-P	Yagi	30	2	11.81'	**$1,583.98**
DBO-OB2-40-P	Yagi	40	2	18.37'	**$1,782.98**
DBO-OB2-40M-P	Moxon Yagi	40	2	18.37'	**$1,922.98**
DBO-OB2-80PLUS-P	Yagi	80 SSB+CW	2	36.09'	**$5,238.98**
DBO-OB2-80S-P	Yagi	80 SSB+CW	2 End-Loaded	32.81'	**$5,238.98**
DBO-OB2-80-SSB-P	Yagi	80 SSB Only	2	36.09'	**$5,238.98**
DBO-OB2-80S-SSBP	Yagi	80 SSB Only	2 End-Loaded	32.81'	**$4,382.98**
DBO-OB3-30-P	Yagi	30	3	29.20'	**$2,480.98**
DBO-OB3-40-P	Yagi	40	3	29.53'	**$3,188.98**
DBO-OB3-80PLUS-P	Yagi	80	3	65.62'	**$8,320.98**
DBO-OB3-80-SSB-P	Yagi	80	3	65.62'	**$7,084.98**
DBO-OB4020-P	Yagi	40/20	8	49.54'	**$4,630.97**
DBO-OB4020X-P	Yagi	40/20	8	49 .21'	**$5,577.97**
DBO-OB4030-P	Yagi	40/30	4	18.37'	**$2,978.98**
DBO-OB4030X-P	Yagi	40/30	6	32.81'	**$4,183.98**
DBO-OB4-20OWA-P	Yagi	20	4	24.61'	**$1,195.98**
DBO-OB4-2WARC-P	Yagi	17/12	4	11.48'	**$747.98**
DBO-OB4-40-P	Yagi	40	4	39.04'	**$3,819.98**
DBO-OB4-40OWA-P	Yagi	40	4	49 .21'	**$5,378.98**
DBO-OB5-10-P	Yagi	10	5	24.61'	**$1,075.98**
DBO-OB5-12-P	Yagi	12	5	28.87'	**$1,394.98**
DBO-OB5-15-P	Yagi	15	5	33.14'	**$1,494.98**
DBO-OB5-17-P	Yagi	17	5	39.63'	**$2,350.98**
DBO-OB5-20-P	Yagi	20	5	49.54'	**$2,690.98**
DBO-OB6-10-P	Yagi	10	6	37.07'	**$1,494.98**
DBO-OB6-15-P	Yagi	15	6	49 .21'	**$1,792.98**
DBO-OB6-2W-P	Yagi	12/10	6	14.57'	**$796.98**
DBO-OB6-3M-P	Moxon Yagi	20/15/10	6	10.17'	**$1,035.98**
DBO-OB7-2WARC-P	Yagi	17/12	7	16.73'	**$1,085.98**
DBO-OB7-3-P	Yagi	20/15/10	6	13.45'	**$1,075.98**
DBO-OB804020-MSP	Yagi	80 SSB+CW/40/20	2/3/5	54.46'	**$8,165.96**
DBO-OB804020SSBP	Yagi	80 SSB/40/20	2/3/5	54.46'	**$7,319.96**
DBO-OB804030-P	Yagi	80 SSB+CW/40/30	6	32.81'	**$7,369.98**
DBO-OB804030X-P	Yagi	80 SSB+CW/40/30	8	44.29'	**$8,464.98**
DBO-OB8040X-P	Yagi	80/40	5	49.21'	**$8,365.97**
DBO-OB8-4M-P	Moxon Yagi	40/20/15/10	8	20'	**$2,809.98**
DBO-OB9-2WARC-P	Yagi	17/12	9	32.15'	**$1,948.98**
DBO-OB9-3WARC-P	Yagi	30/17/12	9	20'	**$2,716.98**
DBO-OB9-5HD-P	Yagi	20/17/15/12/10	9	16.73'	**$1,573.98**
DBO-OBLY11-4-P	Log Yagi	17/15/12/10	11	16.50'	**$1,324.98**
DBO-OBLY14-4-P	Log Yagi	17/15/12/10	14	24.61'	**$1,693.98**
DBO-OBLY14-5-P	Log Yagi	20/17/15/12/10	14	24.61'	**$1,912.98**
DBO-OBLY16-5-P	Log Yagi	20/17/15/12/10	16	33.14'	**$2,610.98**
DBO-OBLY20-5-P	Log Yagi	20/17/15/12/10	20	49.21'	**$3,576.98**
DBO-OBLY25-5-P	Log Yagi	20/17/15/12/10	25	68.90'	**$4,482.98**



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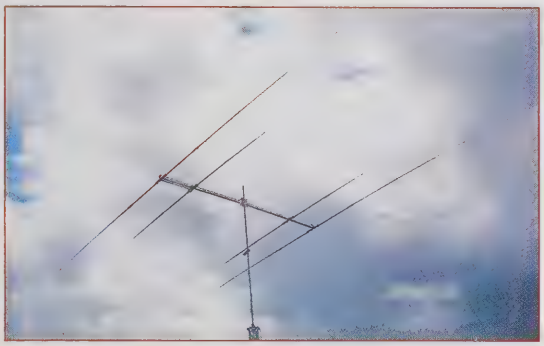

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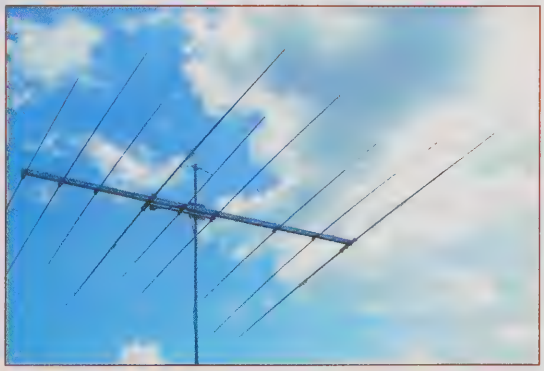


DBO-OB9-3WARC-P

DBO-OB9-5HD-P

Orders by 10 pm ET ship the same day. See pg. 76 for details.

EAN-R2010704

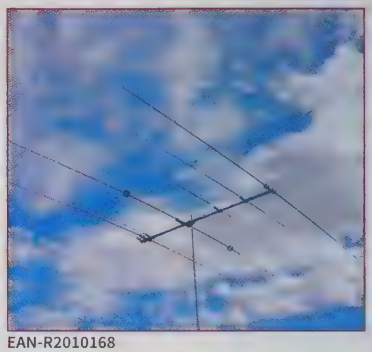
EAN-R2010707

EAN-R2010711

EAN-R2010153

EAN-R2010156

EAN-R2010157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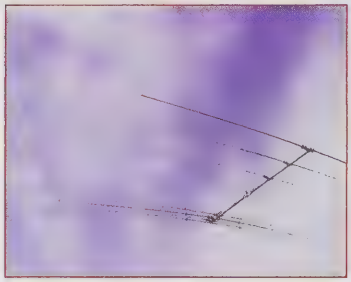
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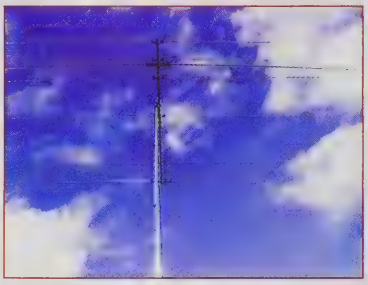

EAN-R2010420

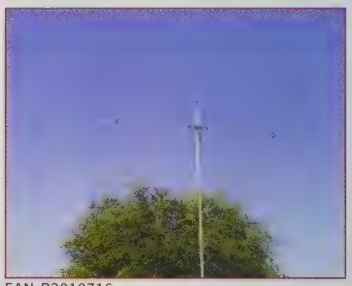
EAN-R2010701

Rotatable HF Antennas

Eantenna's HF options include Yagi, log periodic, delta loop and dipole antennas. In most cases, they'll handle the full legal limit, making them an excellent choice for HF DXing and contesting. With uncompromising manufacturing standards and cutting-edge designs, EAntenna products are smart, long-term HF antenna investments. Find the full specs at DXEngineering.com.

Part Number	Band(s)	Max. Gain	Boom Length	Price
Yagi				
EAN-R2010704	40M	6.5 dBi	18.36'	**$1,079.99**
EAN-R2010706	40M	7.5 dBi	33'	**$1,359.99**
EAN-R2010707	40/30M	7.1 dBi	18.70'	**$1,729.99**
EAN-R2010711	20M	8.8 dBi	23.83'	**$659.99**
EAN-R2010135	2M	13.3 dBi	12.35'	**$205.99**
EAN-R2010153	20/15/10M	9.9 dBi	32.12'	**$1,799.99**
EAN-R2010156	20/17/15/12/10M	8 dBi	18.85'	**$1,499.99**
EAN-R2010157	20/15/10M	7 dBi	12.5'	**$899.99**
EAN-R2010168	40/20/15/10M	7 dBd	12.50'	**$1,299.99**
EAN-R2010169	20/17/15/12/10M	7 dBi	12.5'	**$1,059.99**
EAN-R2010170	40/20/17/15/12/10	7 dBd	12.50'	**$1,549.99**
EAN-R2010420	20/15/10M	6.2 dBi	10.43'	**$515.99**
Part Number	**Band(s)**	**Max. Gain**	**Turning Radius**	**Price**
Rotatable Dipoles				
EAN-R2010701	30/17/12M	3 dBi	20.32'	**$599.99**
EAN-R2010702	40M	2.15 dBi	19.68'	**$489.99**
EAN-R2010703	40/17/12M	3 dBi	21.65'	**$585.99**
EAN-R2010705	40/20/15/10M	2.15 dBi	21.65'	**$699.99**
EAN-R2010708	80M	2 dBi	28.70'	**$659.99**
EAN-R2010716	30M	2.15 dBi	14.92'	**$409.99**
EAN-R2010717	40M	2.15 dBi	17.11'	**$489.99**
EAN-R2010726	20/15/10M	3 dBi	12.95'	**$579.99**

EAN-R2010702


EAN-R2010716

EAN-R2010703

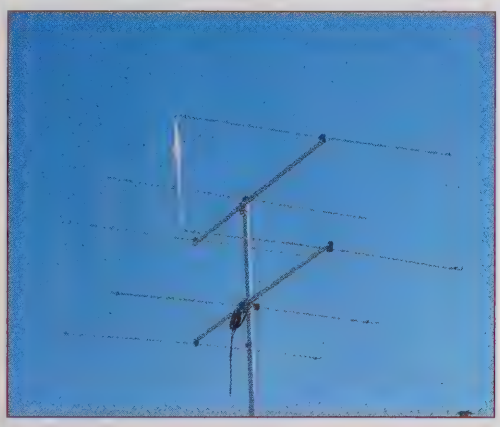
EAN-R2010717

EAN-R2010726

Delta Loop Antennas

A delta loop antenna is an efficient way to get directional multi-band HF coverage, without installing a large HF Yagi or dipole. Made with aluminum tubing, these lightweight antennas are full-size vertical loops that deliver excellent low noise characteristics. When installed with a rotator, you can peak or null signals for the best reception. Both antennas handle 1,000 watts and require an antenna tuner. Check out the antenna tuners section of this catalog for compatible models. Wide range tuner required.

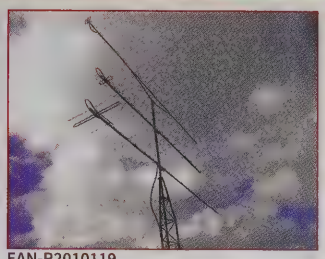
Part Number	Bands	Gain	Price
EAN-R2010201	40/30/20/17/15/12/10M	6.8 dBi	**$329.99**
EAN-R2010202	20/17/15/12/10M	6.5 dBi	**$279.99**



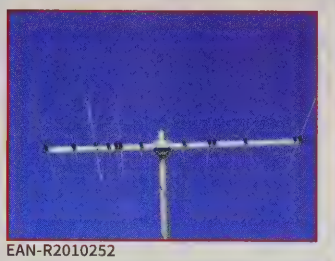
6 Meter Rectangular Quad Loop Antennas

Rule the "Magic Band" with a rugged loop antenna. These antennas capitalize on the time-tested quad loop design to give you impressive performance with a relatively small, easy-to-rotate antenna.

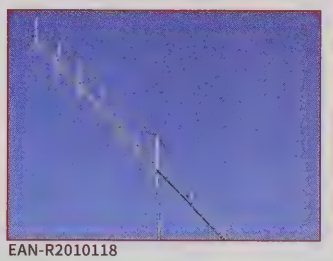
Part Number	Max. Gain	Max. F/B	Boom Length	Price
EAN-R2010451	9.5 dBi	13.6 dB	7.7'	**$309.99**
EAN-R2010450	6.7 dBi	22.85 dB	9.53'	**$165.99**
EAN-R2010452	10.74 dBi	34.58 dB	14.39'	**$375.99**



EAN-R2010119

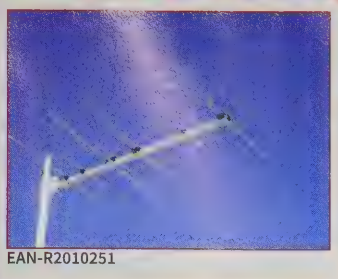


EAN-R2010252



EAN-R2010118

EAN-R2010120



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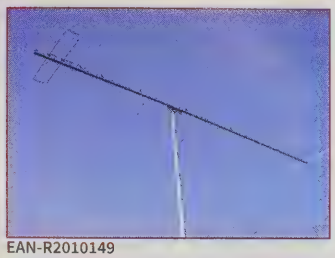

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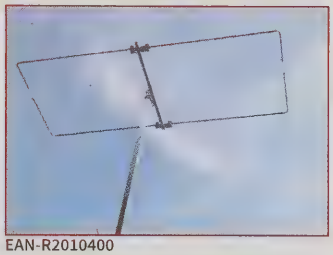


EAN-R2010400

VHF and UHF Directional Antennas

These antennas are built with only the highest quality stainless steel hardware and aircraft grade aluminum, using cutting-edge computer modeling and optimization techniques. EAntenna's precision construction results in state-of-the-art VHF and UHF antennas with excellent durability and wind survival capabilities.

Part Number	Band(s)	Max. Gain	Max. F/B	Boom Length	Price
EAN-R2010119	70cm	18 dBi	42.3 dB	14.1'	**$249.99**
EAN-R2010107	70cm	19.2 dBi	37.5 dB	19.34'	**$349.99**
EAN-R2010120	70cm	20.5 dBi	44.3 dB	27'	**$395.99**
EAN-R2010250	2M/70cm	8.4 dBi	11 dB	2.30'	**$85.99**
EAN-R2010251	2M/70cm	10.7 dBi	11.7 dB	3.94'	**$105.99**
EAN-R2010252	2M/70cm	10.7 dBi	18.7 dB	4.95'	**$119.99**
EAN-R2010105	2M	11.1 dBi	19 dB	5.97'	**$149.99**
EAN-R2010110	2M	12.8 dBi	22.5 dB	9.67'	**$195.99**
EAN-R2010149	2M	14.2 dBi	25.2 dB	14.75'	**$259.99**
EAN-R2010117	2M	14.6 dBi	28.6 dB	16.39'	**$239.99**
EAN-R2010103	2M	15.3 dBi	28.6 dB	20.16'	**$325.99**
EAN-R2010130	2M	16.0 dBi	26.4 dB	25.9'	**$369.99**
EAN-R2010118	2M	17.4 dBi	34 dB	35.8'	**$439.99**
EAN-R2010253	6/4/2M	7.7 dBi	10.8 dB	4.1'	**$175.99**
EAN-R2010152	6/4M	11.2 dBi	17.2 dB	16.2'	**$439.99**
EAN-R2010400	6M	6 dBi	25 dB	2.95'	**$115.99**
EAN-R2010106	6M	9.4 dBi	23 dB	5.1'	**$259.99**
EAN-R2010109	6M	8.6 dBi	14.4 dB	4.6'	**$199.99**
EAN-R2010102	6M	10.6 dBi	24.8 dB	14.68'	**$299.99**
EAN-R2010116	6M	11.3 dBi	25.0 dB	18.75'	**$345.99**
EAN-R2010115	6M	11.8 dBi	22.3 dB	19.4'	**$399.99**
EAN-R2010113	6M	12.0 dBi	25.4 dB	20.1'	**$405.99**
EAN-R2010114	6M	12.0 dBi	25.4 dB	20.75'	**$409.99**
EAN-R2010108	6M	11.8 dBi	28 dB	22.78'	**$459.99**
EAN-R2010111	6M	12.9 dBi	32 dB	30.8'	**$499.99**
EAN-R2010150	6M	14.1 dBi	29.0 dB	22.8'	**$779.99**
EAN-R2010124	6M	12.3 dBi	22.6 dB	23.9'	**$459.99**
EAN-R2010123	6M	14.7 dBi	27.1 dB	49.6'	**$899.99**
EAN-R2010104	6M	15.3 dBi	40.0 dB	58.3'	**$999.99**

EAN-R2010106

EAN-R2010102

EAN-R2010111

Call us for easy special orders!

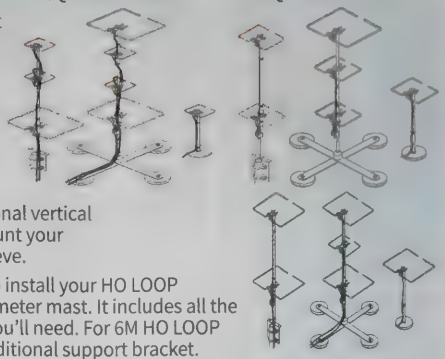
MSQ-6M5XHP

VHF/UHF Antennas

M2 Antennas uses computer modeling technology, weather resistant materials and CNC-machined elements to create the best performing antennas possible. Here is the complete line of its VHF/UHF offering. Find full details at DXEngineering.com.

Part Number	Band	Gain	Elements	Boom	Price
Yagi Antennas					
MSQ-6M3	6M	8.2 dBi	3	6.8'	**$241.99**
MSQ-6M3SS	6M	8.1 dBi	3	5.5'	**$209.99**
MSQ-6M5XHP	6M	11.5 dBi	5	18'	**$493.99**
MSQ-6M7JHV	6M	13 dBi	7	34.5'	**$524.99**
MSQ-6M9KHWA	6M	14.8 dBi	9	49.3'	**$1,091.99**
MSQ-2M3SS	2M	8.3 dBi	3	3.1'	**$120.99**
MSQ-2M4	2M	9.6 dBi	4	4'	**$157.99**
MSQ-2M7	2M	12.3 dBi	7	8.9'	**$178.99**
MSQ-2M9SSBFM	2M	14.1 dBi	9	14.5'	**$283.99**
MSQ-2M12	2M	14.6 dBi	12	19.5'	**$293.99**
MSQ-2M5WL	2M	16.8 dBi	17	33.1'	**$461.99**
MSQ-2M18XXX	2M	17.1 dBi	18	36.5'	**$493.99**
MSQ-2225SS	1.25M	10.3 dBi	5	3'	**$115.99**
MSQ-22210EZ	1.25M	14.4 dBi	10	9.75'	**$188.99**
MSQ-2225WL	1.25M	17.4 dBi	15	23.3'	**$293.99**
MSQ-4406SS	70cm	11 dBi	6	3'	**$94.99**
MSQ-4205011	70cm	13.4 dBi	11	5'	**$178.99**
MSQ-43212EME	70cm	16.4 dBi	12	9.67'	**$178.99**
MSQ-44018	70cm	16.6 dBi	18	11'	**$209.99**
MSQ-432-6WL	70cm	18 dBi	21	14.5'	**$230.99**
MSQ-4329WL	70cm	19.4 dBi	28	21'	**$304.99**
MSQ-43213WLA	70cm	20.5 dBi	38	30.4'	**$440.99**
MSQ-9029	33cm	14.2 dBi	9	3'	**$67.99**
MSQ-90217	33cm	17 dBi	17	6.17'	**$79.99**
MSQ-23CM22EZA	23cm	18.2 dBi	22	5.83'	**$272.99**
MSQ-23CM35	23cm	20.9 dBi	35	10'	**$293.99**
Dual Polarity Beam Antennas					
MSQ-2MXP20	2M	15.3 dBi	20	21.6'	**$367.99**
MSQ-2MXP28	2M	17.2 dBi	28	34.5'	**$577.99**
MSQ-2MXP32	2M	17.9 dBi	32	41'	**$650.99**
Circular Polarity Beam Antennas					
MSQ-2MCP14	2M	12.3 dBic	14	10.5'	**$335.99**
MSQ-2MCP22	2M	14.4 dBic	22	18.6'	**$493.99**
MSQ-436CP30	70cm	15.5 dBic	30	9.75'	**$325.99**
MSQ-436CP42UG	70cm	18.9 dBic	42	18.9'	**$461.99**

HO LOOP Antennas



MSQ-70CMHOLOOP MSQ-222HOLOOP

MSQ-2MHOLOOP

These antennas give you excellent SSB and CW communications with a reach of over 200 miles. Excellent for mobile or base weak-signal stations, these antennas offer omnidirectional coverage without a rotator. HO LOOP Antennas' horizontal polarity means you get upwards of 5 dB ground gain over a traditional vertical antenna. Plus, the higher you mount your HO LOOP, the more gain you achieve.

The Mast Bracket kit allows you to install your HO LOOP antenna on any 1.25 to 2 inch diameter mast. It includes all the brackets, cradles and hardware you'll need. For 6M HO LOOP antennas, be sure to order the additional support bracket. Stacked gain with optional items.

MSQ-2MHOLOOP	2M HO LOOP, 4 dBd Gain (10')/8 dBd Gain (6.83' & 11')	**$94.99**
MSQ-6MHOLOOP	6M HO LOOP, 4.2 dBd Gain (11')/8.2 dBd Gain (40' and 52')	**$157.99**
MSQ-70CMHOLOOP	432 MHz/70cm HO LOOP, 5 dBd Gain (7.17')/8.8 dBd Gain (7' and 8.3')	**$73.99**
MSQ-222HOLOOP	1.25M HO LOOP, 4.7 dBd Gain (7')/8.2 dBd Gain (7' and 9.75')	**$94.99**
MSQ-MASTBRKTKIT	HO LOOP Base Installation Hardware	**$29.99**

M2 Antennas Power Dividers

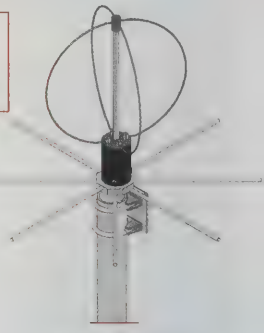
MSQ-2222PRTPD

Add 3 dB gain with two antennas and nearly 6 dB gain with four antennas using M2 Antennas Power Dividers on properly spaced VHF and UHF stacked arrays. These non-isolation RF combiners match impedances for two or four Loop or Yagi antennas fed in phase with equal lengths of 50 Ω coax.

They feature Type N connectors and are rated at 3 kW. The 6 meter models are made with low loss coax and all other band models are aluminum tubing, blocks and solid metal center conductors with air dielectric for nearly immeasurable loss of less than 0.1 dB. Each pair of stacked antennas nearly doubles the effective radiated power of your station!

Find the right Power Divider for your application at DXEngineering.com.

Eggbeater Satellite Antennas



MSQ-EB432RK70CM

Shoot for the stars with antennas that let you contact other Hams using Amateur Satellites and communicate directly with the International Space Station! These antennas are equally effective in your base or mobile station. They produce smooth, omnidirectional horizontal polarity patterns at the horizon. Above the horizon, the pattern transforms to right-hand circular for excellent OSCAR communications. The small physical footprint of these antennas allows many mounting options at a budget-friendly price.

A Satellite Antenna Package is available that includes the 2M and 70cm antennas, a cross boom VHF/UHF kit and mounting hardware—practically everything you'll need to open up a new world of Amateur communications. Visit DXEngineering.com for complete details.

MSQ-EB144RK2M	Satellite Eggbeater Antenna, 2 Meter Band	**$272.99**
MSQ-EB432RK70CM	Satellite Eggbeater Antenna, 70cm Band	**$251.99**
MSQ-SATPACK1	Satellite Antenna Package, 2M and 70cm, Cross Boom	**$514.99**

Cushcraft
Amateur Radio Antennas

Rotatable Dipole Antennas

The World Ranger dipoles provide bi-directional patterns with rotatable convenience. You can mount them high and away from the trees for better performance than a wire dipole. These single and multi-band dipoles feature high-performance traps, heavy wall tubing and rugged hardware for years of enjoyment.

Part Number	Band(s)	Gain	Turning Radius	Price
CSH-D3	20/15/10M	2.1 dBi	12.9'	**$369.95**
CSH-D3W	30/17/12M	2.1 dBi	17'	**$369.95**
CSH-D4	40/20/15/10M	2.1 dBi	17.9'	**$419.95**
CSH-D40	40M	2.1 dBi	21.1'	**$399.95**

Installation, Upgrade and Antenna Building Hardware

M2 Antennas offers several installation, repair and upgrade parts for your station. Its Cross Boom helps you mount multiple Yagi (or Eggbeater) antennas, and it is available with heavy duty aluminum and fiberglass construction that won't distort your antenna patterns. You can also get boom insulators and clips to complete your installation. Find all the pieces available at DXEngineering.com.

MSQ-CB60	Satellite Antenna Cross Boom, Heavy Duty, 11'	**$251.99**
MSQ-BUTTON001	Beam Hardware Button Insulators, Bag of 50	**$10.99**
MSQ-KEEPER001	Beam Hardware Retainer Clips, Bag of 50	**$20.99**

CSH-A506S

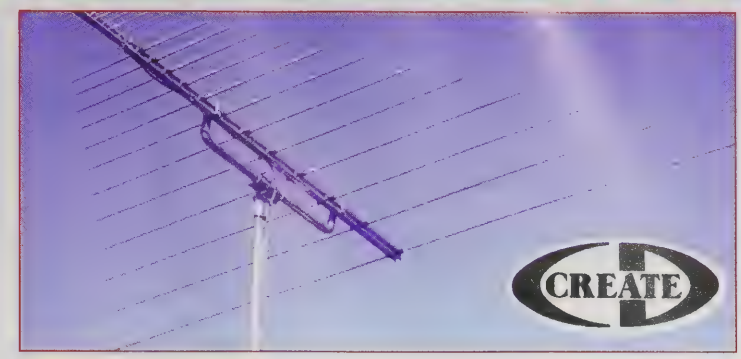
VHF/UHF Yagi Antennas

Cushcraft engineers used computer-aided modeling and test range techniques to optimize the performance of these popular VHF and UHF Yagis. That means you get more gain and cleaner patterns with excellent front-to-back ratios. The gain figures listed below are based off the highest peak rating; find comprehensive specs at DXEngineering.com.

S-series antennas, denoted by an "S" at the end of the part number, have very broad bandwidth so they will not detune in bad weather. The S-series also features stainless steel hardware.

Cushcraft also makes Power Dividers to make it easy to stack these antennas, available in 2- or 4-antenna configurations. They serve as a T-harness; simply connect your incoming 50 Ω coax to the center and it splits your outgoing line in two.

Part Number	Band(s)	Gain	Elements	Boom	Price
CSH-A503S	6M	8.0 dBi	3	6'	**$139.95**
CSH-A505S	6M	10.5 dBi	5	12'	**$199.95**
CSH-A506S	6M	11.6 dBi	6	20'	**$399.95**
CSH-A627013S	6M/2M/70cm	10.0 dBi	13	14'	**$279.95**
CSH-A2706S	2M/70cm	7.8 dBi	6	2.8'	**$129.95**
CSH-A27010S	2M/70cm	10.0 dBi	10	6.1'	**$169.95**
CSH-A1483S	2M	7.8 dBi	3	2.8'	**$69.95**
CSH-A14810S	2M	13.3 dBi	10	12'	**$139.95**
CSH-A14820T	2M	11.1 dBd	20	11'	**$219.95**
CSH-A124WB	2M	10.2 dBi	4	4'	**$109.95**
CSH-A13B2	2M	15.8 dBi	13	15'	**$249.95**
CSH-A26B2	2M	18.8 dBi	26	15'	**$599.95**
CSH-A17B2	2M	18.0 dBi	17	31'	**$369.95**
CSH-A224WB	1.25M	10.2 dBi	4	3'	**$99.95**
CSH-A719B	70cm	15.5 dBd	19	13.5'	**$249.95**
CSH-A43011S	70cm	13.2 dBi	11	4.7'	**$119.95**
CSH-A4496S	70cm	10.5 dBi	6	2.9'	**$79.95**
CSH-A44911S	70cm	13.2 dBi	11	4.2'	**$119.95**
Power Dividers					
CSH-PD2	Power Divider to Stack 2 VHF/UHF Antennas				**$69.95**
CSH-PD4	Power Divider to Stack 4 VHF/UHF Antennas				**$89.95**



VHF/UHF Log Periodic Antennas

If you don't have the space (or friendly neighbors) to put up several VHF and UHF antennas, Create offers you an uncompromising single antenna option. Using 21 elements, the wideband directional CLP-5130-1N gets you on the 1.25, 2 and 6 meter bands, plus the 23, 33 and 70cm bands. It handles 500 watts and gives you an average gain of 10 dBi. With a 6.66 foot boom length, it's compact enough to go almost anywhere and at 11 pounds, it's perfect for most rotators. You can also use this antenna for VHF/UHF TV, FM broadcast, aviation and government communication applications. Create's CLP-5130-2N is similar to the 1N, except it provides 11 dBi of gain and doesn't offer coverage on the 6 meter band.

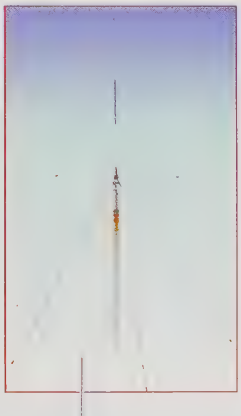
CAE-CLP-5130-1N VHF/UHF Log Periodic Antenna, 6-Band **$519.99**
CAE-CLP-5130-2N VHF/UHF Log Periodic Antenna, 5-Band **$379.99**

COMET

DS-150S Discone Base Antenna

If you're living in an apartment where space is limited or in a community where larger antennas are frowned upon, then this compact antenna will let you stay in the game. It is less than five feet high and three feet wide, but covers 25 to 1300 MHz (receive). Transmitting is possible on the 6M, 2M, 70cm and 33cm bands, plus 1.2 GHz without a tuner. This antenna could be the perfect solution for your scanner or VHF/UHF transceiver.

CMA-DS-150S Discone Base Antenna.....**$104.99**

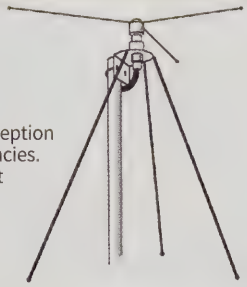


HUSTLER

Discone Base Station Scanner Antenna

Match this antenna to your scanner and get excellent reception on public service, aircraft, mobile and telephone frequencies. It's vertically polarized, covers 40 to 950 MHz and doesn't need adjusting. The antenna is 54 inches high with an 18 inch diameter. A 50 foot cable with a BNC male connector is included.

HSR-DCL-B Discone Base Station Antenna...**$48.99**

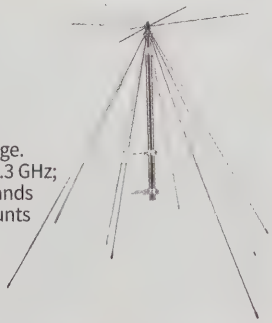


ICOM

Discone Antenna

Get super-wide frequency coverage in a compact package. This antenna has excellent reception from 100 MHz to 2.3 GHz; plus excellent transmit capabilities on many popular bands including 2M, 70cm and 23cm. It is only 3 feet high, mounts to any 2 inch mast and includes 49 feet of coax with an N connector.

ICO-AH-8000 Discone Antenna...**$269.99**

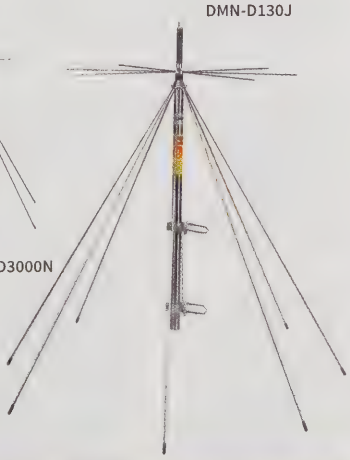


DIAMOND ANTENNA

Mobile/Base Discone Antennas

Take advantages of the wideband properties of Diamond's Discone Antennas. They're perfect for Amateur Radio, commercial two-way, cellular, air traffic and utility frequencies. You can also use these as "shop" antennas to test your transmitters with one run of coaxial cable. These versatile, yet compact antennas are rust-resistant and durable.

DMN-D3000N


DMN-D130J

Part Number	Description	Height	TX Frequency	RX Frequency	Price
DMN-D130J	Super Discone, SO-239, Base	66.9"	50-1300 MHz	25-1300 MHz	**$95.99**
DMN-D130NJ	Super Discone, Type N, Base	66.9"	50-1300 MHz	25-1300 MHz	**$95.99**
DMN-D3000N	Super Discone, Type N, Base	66.9"	50-1200 MHz	25-3000 MHz	**$149.99**
DMN-D220	Mobile* Discone, SO-239, Scanner	35.5"	144-1300 MHz	100-1300 MHz	**$109.99**

*Designed for Diamond's K400S, K400C, K600M and K600S Mobile Mounts

Need help with your project? Call the tech line at 330-572-3200!

More Diamond Base/Repeater Antennas

Find Complete Specs at DXEngineering.com

Multi-Band Resonant Vertical Antennas (1.4" to 2.4" OD Mast Required)

Part Number	Bands	Height	Power Rating	Price
DMN-CP5H	40/10/15/6M	11.7'	500 Watts	$379.99
DMN-CP6AR	80/40/15/10/6M	15.1'	200 Watts	$419.99
DMN-CP610	10/6M	22.0'	500 Watts	$239.99

Monoband Base/Repeater Antennas (1.25" to 2.4" OD Mast Required)

Part Number	Band	Height	Power Rating	Gain	Price
DMN-CP62	6 Meter	22.0'	200 Watts	5.5 dBi	$199.99
DMN-CP22E	2 Meter	8.9'	200 Watts	6.5 dBi	$54.99
DMN-F22A	2 Meter	10.5'	200 Watts	6.71 dBi	$94.99
DMN-F23H	2 Meter	15'	350 Watts	7.8 dBi	$159.99
DMN-F718A	70cm	15'	250 Watts	11.5 dBi	$219.99
DMN-F1230All	23cm	11.5'	100 Watts	13.8 dBi	$174.99
DMN-G200	2.4-2.5 GHz (Wi-Fi)	4.83'	10 Watts	11 dBi	$214.99

Dual-Band Base/Repeater Antennas (1.25" to 2.4" OD Mast Required)

Part Number	Bands (Connector)	Height	Power Rating	Gain	Price
DMN-X30A	2M/70cm (SO-239)	4.5'	150 Watts	3 dBi (2M) 5.5 dBi (70cm)	$69.99
DMN-X50A	2M/70cm (SO-239)	5.6'	200 W (2M) 250 W (70cm)	4.5 dBi (2M) 7.2 dBi (70cm)	$94.99
DMN-X50NA	2M/70cm (Type N)	5.6'	200 W (2M) 250 W (70cm)	4.5 dBi (2M) 7.2 dBi (70cm)	$94.99
DMN-X200A	2M/70cm (SO-239)	8.3'	200 Watts	6 dBi (2M) 8 dBi (70cm)	$124.99
DMN-X300A	2M/70cm (SO-239)	10'	200 Watts	6.5 dBi (2M) 9 dBi (70cm)	$139.99
DMN-X300NA	2M/70cm (Type N)	10'	200 Watts	6.5 dBi (2M) 9 dBi (70cm)	$139.99
DMN-X510HDM	2M/70cm (SO-239)	17.2'	330 W (2M) 250 W (70cm)	8.3 dBi (2M) 11.7 dBi (70cm)	$199.99
DMN-X510HDNA	2M/70cm (Type N)	17.2'	330 W (2M) 250 W (70cm)	8.3 dBi (2M) 11.7 dBi (70cm)	$199.99
DMN-X510NJ	2M/70cm (Type N)	17.2'	200 Watts	8.3 dBi (2M) 11.7 dBi (70cm)	$199.99
DMN-X700HNA	2M/70cm (Type N)	24'	200 Watts	9.3 dBi (2M) 13 dBi (70cm)	$389.99

Tri-Band Base/Repeater Antennas (1.25" to 2.4" OD Mast Required)

Part Number	Bands	Height	Power Rating	Gain	Price
DMN-V2000A	6M/2M/70cm	8.3'	150 Watts	2.1 dBi (6M) 6.2 dBi (2M) 8.4 dBi (70cm)	$159.99
DMN-X6000A	2M/70cm/23cm	10.5'	100 W (2M) 100 W (1.25M) 60 W (23cm)	6.5 dBi (2M) 9 dBi (70cm) 10 dBi (23cm)	$189.99

Yagi Beam Base Antennas

Part Number	Band	Elements	Boom Length	Power Rating	Gain	Price
DMN-A502HB	6 Meter	2	2.5'	400 Watts	6.3 dBi	$99.99
DMN-A144S5	2 Meter	5	3.1'	100 Watts	9.1 dBi	$59.99
DMN-A430S10	70cm	10	3.9'	100 Watts	13.1 dBi	$69.99
DMN-A430S15	70cm	15	7.4'	100 Watts	14.8 dBi	$89.99

Ruggedized Base/Repeater Antennas

2 Meter Yagi Beam Antennas

These antennas are lightweight, yet deliver excellent performance. You can mount them vertically or horizontally, making them perfect choices for chasing SSB DX or in mobile/repeater operations. These 50 watt directional antennas are compact, easy to assemble and are great for Field Day, vacationing, and other portable uses. They come pre-adjusted, so you can get on the air quickly.

DMN-A144S5 — 2M Yagi, 3.1' Boom, 9.1 dBi Gain $59.99

DMN-A144S10 — 2M Yagi, 7' Boom, 11.6 dBi Gain $94.99

6 Meter Base Station Yagi Beam Antenna

Looking for a compact and lightweight antenna to get in on the 6 meter action? Here's your solution. It's easy to set up and delivers over 6 dB gain on 6M with only 2 elements and a 2.5 foot boom. The antenna handles 400 watts and wind speeds up to 80 mph.

DMN-A502HB — 6M Yagi Beam Antenna $99.99

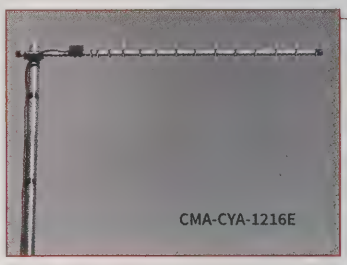
Vertical VHF/UHF Antennas

Reach out further and get maximum performance with Comet Antennas. These antennas all feature durable construction, so they are ideal for rough-weather environments. There are fiberglass and aluminum options for many applications and every antenna comes with Comet's superior quality, coverage and gain. The complete specs on every Comet Antenna can be found at DXEngineering.com.

CMA-GP-3

Part Number	Coverage	Gain	Connector	Height	Price
CMA-GP-21	23cm	14.9 dBi	Type N (F)	8'	$174.99
CMA-KP-20	33cm	9.2 dBi	Type N (F)	8'	$121.99
CMA-CA-712EF	70cm	9 dBi	SO-239	10.5'	$119.99
CMA-CA-F72GF	70cm	5.5 dBi	Type N (F)	3.5'	$119.99
CMA-CA-SUPER22	1.25M	6.6 dBi	SO-239	8'	$159.99
CMA-CA-F22GF	2M	5.5 dBi	SO-239	8.9'	$154.99
CMA-CA-F22GFN	2M	5.5 dBi	Type N (F)	8.9'	$154.99
CMA-CFM-95SL	88-108 MHz	3.4 dBi	SO-239	7.7'	$115.99
CMA-GP-1	2M/70cm	3/6 dBi	SO-239	4'	$79.99
CMA-GP-3	2M/70cm	4.5/7.2 dBi	SO-239	5.9'	$104.99
CMA-GP-6	2M/70cm	6.5/9 dBi	SO-239	10.1'	$159.99
CMA-GP-9	2M/70cm	8.5/11.9 dBi	SO-239	18.5'	$214.99
CMA-GP-9N	2M/70cm	8.5/11.9 dBi	Type N (F)	18.5'	$209.99
CMA-CX-333	2M/1.25M/70cm	6.5/7.8/9 dBi	SO-239	10.4'	$179.99
CMA-GP-95	2M/70cm/23cm	6/8.6/12.8 dBi	Type N (F)	8'	$179.99
CMA-GP-98	2M/70cm/23cm	6.5/9/13.5 dBi	Type N (F)	9.7'	$199.99
CMA-GP-15	6M/2M/70cm	3/6.2/8.6 dBi	SO-239	7.9'	$174.99

VHF/UHF Beam Antennas



Comet offers you two stellar Yagi antennas, one for the 6M band and one for the 23cm band. They're compact and lightweight, and have stainless steel hardware so they're rugged enough to last for years. Installation is easy, and the CYA-1216E comes pre-assembled.

CMA-CYA-1216E — 23cm Beam Antenna, 5.25' Boom, 16-Element, 16.6 dBi Gain $154.99

CMA-CA-52HB4 — 6M Wideband Beam Antenna, 10.5' Boom, 4-Element, 10.5 dBi Gain $139.99

Pulsar VHF/UHF Antennas

Well suited for base or repeater use, these antennas feature MFJ's exclusive PulsePEAK. That means you get a super-low angle of radiation pointed directly at the horizon, which results in maximum gain and excellent long-range performance. These antennas feature fiberglass radomes, stainless steel hardware and waterproof joints for years of dependable service.

MFJ-1516 — 2M Base/Repeater Antenna, 7.8 dB Gain, 15'... $99.95

MFJ-1522 — 2M/70cm Base Antenna, 4.5/7.2 dB Gain, 5.5'; $69.95

MFJ-1524 — 2M/70cm Base Antenna,6.5/9 dB Gain, 10' $119.95

MFJ-1526 — 2M/70cm Base Antenna, 8.3/11.7 dB Gain, SO-239, 17' $139.95

MFJ-1532N — 2M/70cm/1.2 GHz Base Antenna, 4.5/8.3/11.7 dB Gain, 5.5' $99.95

MFJ-1536 — 6M/2M/70cm Base Antenna, 2/6/8 dB Gain, 8.2' $119.95

MFJ-1538 — 6M/2M/1.25M/70cm Base Antenna, 2.15/6.2/7.2/8.4 dB Gain, 8.2' $119.95

Wi-Fi Antennas

CMA-GP-24R

For exceptional performance at 2.4 GHz, Comet offers three options. Full details on coverage and dimensions are at DXEngineering.com.

Comet's GP-24R High Gain Wi-Fi Access Point Antenna delivers a whopping a 12 dBi gain in a narrow elevation pattern. It provides excellent coverage because it reaches out directly towards the horizon.

Designed to meet strict coverage requirements, the GP-24-3R and GP-24SR antennas are well suited for Wi-Fi, MESH, base or repeater installations. They have a heavy-duty fiberglass radome, with stainless steel clamps.

CMA-GP-24R — High Gain Wi-Fi Access Point Antenna $179.99

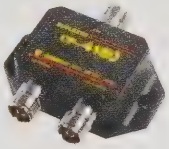
CMA-GP-24-3R — Omnidirectional 2.4 GHz Base Antenna, 70" Tall $179.99

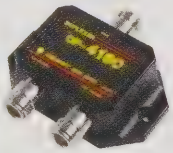
CMA-GP-24SR — Omnidirectional 2.4 GHz Base Antenna, 39" Tall $129.99

COMET

Comet Duplexers	Port*	Frequency	PEP	Loss	Isolation	Mix Connector	Port Connector	Price
CMA-CF-142	LPF HPF	1.3-150 MHz 200-480 MHz	600 W 400 W	.2 dB .3 dB	40 dB	SO-239	PL-259 PL-259	$69.99
CMA-CF-360B	LPF HPF	1.3-30 MHz 49-470 MHz	600 W 600 W	.2 dB .2 dB	45 dB	PL-259	SO-239 SO-239	$69.99
CMA-CF-413B	LPF HPF	1.3-500 MHz 840-1300 MHz	500 W 200 W	.25 dB .4 dB	60 dB	Type N Female	PL-259 Type N Male	$62.99
CMA-CF-416A	LPF HPF	1.3-170 MHz 350-540 MHz	800 W 500 W	.15 dB .25 dB	60 dB	SO-239	PL-259 PL-259	$49.99
CMA-CF-416B	LPF HPF	1.3-170 MHz 350-540 MHz	800 W 500 W	.15 dB .25 dB	60 dB	S0-239	PL-259 Type N Male	$49.99
CMA-CF-416W	LPF HPF	1.2-250 MHz 400-1400 MHz	400 W 200 W	.2 dB .3 dB	30 dB	Type N Female	PL-259 Type N Male	$69.99
CMA-CF-4160I	LPF HPF	1.3-170 MHz 350-540 MHz	800 W 500 W	.1 dB .2 dB	60 dB	SO-239	PL-259 Type N Male	$48.99
CMA-CF-4160J	LPF HPF	1.3-170 MHz 350-540 MHz	800 W 500 W	.1 dB .2 dB	60 dB	SO-239	SO-239 SO-239	$53.99
CMA-CF-4160K	LPF HPF	1.3-170 MHz 350-540 MHz	800 W 500 W	.1 dB .2 dB	60 dB	SO-239	PL-259 PL-259	$48.99
CMA-CF-4160N	LPF HPF	1.3-170 MHz 350-540 MHz	800 W 500 W	.1 dB .2 dB	60 dB	Type N Female	Type N Female Type N Female	$58.99
CMA-CF-530	LPF HPF	1.3-90 MHz 125-470 MHz	600 W 600 W	.2 dB .2 dB	45 dB	SO-239	PL-259 PL-259	$74.99
CMA-CF-530C	LPF HPF	1.3-90 MHz 125-470 MHz	600 W 600 W	.2 dB .2 dB	45 dB	PL-259	SO-239 SO-239	$74.99
Comet Triplexers	**Port***	**Frequency**	**PEP**	**Loss**	**Isolation**	**Mix Connector**	**Port Connector**	**Price**
CMA-CFX-324A	LPF BPF HPF	1.3-150 MHz 200-320 MHz 390-500 MHz	600 W 600 W 600 W	.2 dB .25 dB .3 dB	40 dB	SO-239	PL-259 PL-259 PL-259	$88.99
CMA-CFX-514J	LPF BPF HPF	1.3-90 MHz 130-200 MHz 380-500 MHz	800 W 800 W 500 W	.15 dB .2 dB .25 dB	55 dB	SO-239	SO-239 SO-239 SO-239	$79.99
CMA-CFX-514N	LPF BPF HPF	1.3-90 MHz 130-200 MHz 380-500 MHz	800 W 800 W 500 W	.2 dB .25 dB .3 dB	55 dB	SO-239	PL-259 PL-259 Type N Male	$79.99

CMA-CF-416A

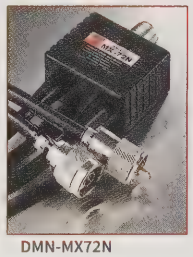

CMA-CF-4160J


CMA-CF-4160N

CMA-CFX-324A

DIAMOND ANTENNA

Diamond Duplexers	Port*	Frequency	FM	PEP	Loss	Isolation	Mix Connector	Port Connector	Price
DMN-MX62M	LPF HPF	1.6-56 MHz 76-470 MHz	200 W 200 W	600 W 600 W	.2 dB .3 dB	50 dB 50 dB	SO-239	PL-259, 12" 5D Cable PL-259, 12" 5D Cable	$78.99
DMN-MX610	LPF HPF	1.3-30 MHz 49-470 MHz	200 W 200 W	600 W 600 W	.2 dB .25 dB	45 dB 45 dB	SO-239	PL-259, No Cable	$69.99
DMN-MX72D	LPF HPF	1.6-30 MHz 140-150 MHz 400-600 MHz	400 W 150 W 100 W	1,000 W 400 W 250 W	.1 dB .1 dB .2 dB	60 dB 60 dB 60 dB	SO-239	PL-259, No Cable PL-259, No Cable	$46.99
DMN-MX72H	LPF HPF	1.6-30 MHz 140-150 MHz 400-600 MHz	400 W 150 W 100 W	1,000 W 400 W 250 W	.1 dB .1 dB .2 dB	60 dB 60 dB 60 dB	SO-239	PL-259, 12" 5D Cable PL-259, 12" 5D Cable	$49.99
DMN-MX72N	LPF HPF	1.6-30 MHz 140-150 MHz 400-460 MHz	400 W 150 W 100 W	1,000 W 400 W 250 W	.1 dB .1 dB .1 dB	60 dB 60 dB 60 dB	SO-239	PL-259, 12" 5D Cable Type N Male, 12" 5D Cable	$49.99
DMN-MX72A	LPF HPF	1.6-30 MHz 140-150 MHz 400-460 MHz	400 W 150 W 100 W	1,000 W 400 W 250 W	.1 dB .1 dB .1 dB	60 dB 60 dB 60 dB	Type N Female	PL-259, 12" 5D Cable PL-259, 12" 5D Cable	$54.99
Diamond Triplexers	**Port***	**Frequency**	**FM**	**PEP**	**Loss**	**Isolation**	**Mix Connector**	**Port Connector**	**Price**
DMN-MX324	LPF BPF HPF	1.6-150 MHz 220-225 MHz 400-550 MHz	400 W 300 W 250 W	800 W 600 W 500 W	.3 dB .4 dB .4 dB	40 dB 40 dB 40 dB	SO-239	PL-259, 12" 5D Cable PL-259, 12" 5D Cable PL-259, 12" 5D Cable	$89.99
DMN-MX2000	LPF BPF HPF	1.6-60 MHz 110-170 MHz 300-950 MHz	400 W 400 W 250 W	800 W 800 W 500 W	.15 dB .2 dB .25 dB	60 dB 60 dB 60 dB	SO-239	PL-259, 12" 5D Cable PL-259, 12" 5D Cable PL-259, 12" 5D Cable	$83.99
DMN-MX2000N	LPF BPF HPF	1.6-60 MHz 110-170 MHz 300-950 MHz	400 W 400 W 250 W	800 W 800 W 500 W	.15 dB .2 dB .25 dB	60 dB 60 dB 60 dB	SO-239	PL-259, 12" 5D Cable PL-259, 12" 5D Cable Type N Male, 12" 5D Cable	$79.99
DMN-MX3000	LPF BPF HPF	1.6-160 MHz 350-500 MHz 850-1300 MHz	400 W 200 W 100 W	800 W 400 W 200 W	.2 dB .3 dB .4 dB	55 dB 55 dB 55 dB	Type N Female	PL-259, 12" 5D Cable PL-259, 12" 5D Cable Type N Male , 12" 5D Cable	$79.99
DMN-MX3000N	LPF BPF HPF	1.6-160 MHz 350-500 MHz 850-1300 MHz	400 W 200 W 100 W	800 W 400 W 200 W	.2 dB .3 dB .4 dB	55 dB 55 dB 55 dB	Type N Female	PL-259, 12" 5D Cable Type N Male, 12" 5D Cable Type N Male , 12" 5D Cable	$85.99


DMN-MX72N

DMN-MX2000

DMN-MX3000

*LPF: Low Pass Filter, BPF: Band Pass Filter, HPF: High Pass Filter

Visit DXEngineering.com for the latest limited-time offers and special savings!

How to Order

Order from DX Engineering:

- Online at www.DXEngineering.com
- By Phone: 1-800-777-0703
- By Fax: 1-330-572-3279
- International Phone Orders: 1-330-572-3200

Please provide your e-mail address for most efficient correspondence and to receive order confirmation notices.

Hours of Operation

Ordering (via phone)

Eastern Time: Monday-Friday: 8:30 am to Midnight
Eastern Time: Saturday & Sunday: 8:30 am to 5 pm

Ordering (online)

Order at www.DXEngineering.com 24 hours a day, 7 days a week

Phone or e-mail Technical Support

Eastern Time: Monday-Friday: 8:30 am to 7 pm
Saturday: 9 am to 5 pm
DXEngineering@DXEngineering.com

Showroom Staffing Hours

Eastern Time: Monday-Saturday: 9 am to 5 pm

Liability Statement

DX Engineering's liability for losses or damages, arising out of any cause whatsoever, is limited to full refund of the purchase price, or at our option, repair or replacement of the part(s). DX Engineering shall not be liable for any consequential or incidental damages. Some states do not allow the exclusion of limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. **Prices are subject to change without notice.** If you have any further questions, please send us an e-mail at DXEngineering@DXEngineering.com or contact us at 1-800-777-0703.

Repairs

We can, in most cases, perform repair service on out-of-warranty DX Engineering, Butternut, COMTEK, Rig Expert and Acom branded products. The cost of repairs is based on a labor rate of $60.00 per hour, and the total cost is estimated before repair work is started. Contact DX Engineering Customer Service to discuss the repairs needed and to receive shipping instructions.

Sales Tax

DX Engineering collects and remits sales tax based on state and local requirements.

Freight, Shipping and Handling Policies

We ship most orders via fast ground service at no additional charge (to the contiguous 48 states). In-stock parts are shipped the same day if you order by 10:00 pm Eastern (0200 March-October, 0300 UTC November-February), Monday through Friday. Most orders arrive in 1-2 days via ground service in the contiguous 48 states.

Please Note: We verify all credit card orders for your protection. In rare cases, this process may cause a slight delay in shipping.

Shipping and Handling

Domestic and APO/FPO (United States, excluding HI, AK, PR, US Territories)

Shipping and Handling on domestic orders is non-refundable and based on order subtotal:

Shipping and Handling charges are subject to change with out notice.

$0-$25	$25.01-$98.99	$99 and up
$9.95	$12.95	FREE

No Shipping or Handling fee on most orders over $99.

Domestic Non-Standard Shipping Options and Charges:

Next Day Air: $39.00 for the first 15 lbs., and $39.00 for each additional 15 pound increment (i.e.; 16 to 30 pounds, 31 to 45 pounds, etc.)

2-Day Air: $29.00 for the first 15 lbs., and $29.00 for each additional 15 pound increment (i.e.; 16 to 30 pounds, 31 to 45 pounds, etc.)

Next Day Air Saturday Delivery (where available): The Next Day Air fee + $18.95 per order

Non-Standard Shipping Charges (Domestic Orders) You May Incur: Hazardous Materials: $30.00 per order

About Shipping (continued)

Oversize Items: A special handling surcharge per item applies—ask your sales rep for details.

Truck Freight Fees are charged for products that are too large or too heavy for regular ground service.

Weight	To Carrier's Distribution Center for Pickup or to Your Home*
0-100 Lbs.	$99.00
101-300 Lbs.	$119.00
301-499 Lbs.	$159.00
500-649 Lbs.	$189.00
650-799 Lbs.	$219.00
800-999 Lbs.	$299.00
1,000+ Lbs.	Call for Quote

*These rates do not include lift gate fees.

Next Day Air: $39.00 per 15 lbs.

2-Day Air: $29.00 per 15 lbs.

Next Day Air Saturday Delivery: The Next Day Air fee + $18.95 per order

HI, AK, PR and US Territories

Shipping and handling is non-refundable and based upon the method selected. Flat rate fees are available.

2-Day Air to Alaska, Hawaii and Puerto Rico is available at a discounted rate using this calculation:

Metro: $25.00 + $2.00 per pound

Rural: $25.00 + $2.75 per pound

International and Canadian

Shipping and handling is non-refundable and based on carrier selection and destination.

Ordering/Shipping Details

Most in-stock parts ship the same day via ground and 2-Day Air if ordered by 10:00 pm Eastern, and via Next Day Air if ordered by 7:00 pm Eastern, Monday through Friday. Saturday Delivery guarantees a part ordered between 7:00 pm Eastern Thursday and 7:00 pm Eastern Friday will be delivered by 3:30 pm Saturday. Oversize or heavy items must be shipped via truck freight at a reduced flat rate (see table), charged at the time of shipment. APO/FPO orders can only ship via U.S. Postal Service and must be pre-paid by a check or credit card. Truck Freight, Hazardous Materials, and some oversize items cannot be shipped to APO/FPO addresses.

International and Canadian orders are classified as those shipping outside of the U.S. or U.S. territories. For more on shipping rates and times, or to obtain quotes for available shipping methods, call 1-330-572-3200.

Order online, or call 1-330-572-3200. Please provide your e-mail address for more efficient correspondence. All international and Canadian orders must be pre-paid and freight charges are based on billable weight (freight on orders with in-stock parts is billed at checkout; some orders with special-order parts may receive a freight estimate and actual cost is billed at time of shipment). In the event of a backorder, your order will be held until ALL items are in stock to save shipping charges. If you choose a Landed Cost Delivery provider (i-parcel for international orders and all major shipping carriers except USPS for Canadian orders), all duties, taxes and clearance fees are included at checkout. Otherwise, duties and taxes will be billed to you by the shipping company at the time of delivery. Ask your sales rep for details.

Backorders

Domestic Customers

All in-stock items are shipped immediately. Most backordered items are shipped as they become available, which may result in multiple shipments for a single order. Customers' credit cards will be charged for in-stock items only when they are shipped. If you are paying by PayPal, all charges are made at the time of the initial order.

International and APO/FPO Customers

You will be charged for the entire order at the time of shipment. Your order will not ship until all items are available. In the event of a backorder, we will hold your entire order until ALL items are in stock. This saves you additional shipping charges. If you wish to have the available items shipped and are willing to pay the additional charges please contact us after you place your order.

Product Warranties

DX Engineering Products

All products manufactured by DX Engineering are warranted to be free from defects in materials and workmanship for a period of one (1) year from date of shipment.
DX Engineering's sole obligation under this warranty shall be to issue credit, repair, or replace any item or part there of which is proved to be other than as warranted. No allowance shall be made for any labor charges of buyer for replacement of parts, adjustments or repairs, or any other work, unless DX Engineering authorizes such charges in advance. Repairs to DX Engineering-produced items are warranted for a period of 90 days against defects in materials and workmanship. Repair or replacement is at DX Engineering's discretion.

Other Manufacturers

Most manufacturers offer their own warranties. All warranties are included with your order. Some manufacturers require their products to be sent directly to them for warranty consideration—before returning any product from another manufacturer, contact us by e-mail or by phone at 1-800-777-0703.

If you want to return any electrical products for warranty consideration, please e-mail us before shipping the items back. We will determine if a warranty claim is valid and where the part needs to be sent. You can also call 1-800-777-0703 to speak to a Customer Service representative. Any item which, in our opinion, shows evidence of being used or installed contrary to manufacturer's instructions, and/or subjected to improper handling, packaging, or shipping by the customer will not be eligible for exchange, refund, or warranty consideration. We reserve the right to charge a restocking fee or refuse any item.

We cannot accept returns on custom-ordered parts. Software or publications cannot be returned for a refund once opened.

Returns

DX Engineering does not have a trial or evaluation period for new equipment. However, if you're not satisfied within 10 days of receiving your purchase, contact our Customer Service/Technical Support department to discuss your options. A purchase may be returned for a full refund within 10 days of receipt providing that the original manufacturer's package is unopened, or is in as-new condition, and is undamaged. Items that you have opened and returned and may be subject to a restocking or repackaging fee.

DX Engineering **recommends that you insure your return shipment.** After inspection and verification of the returned items' condition, DX Engineering will send the purchaser a refund or issue credit to the original payment method used for the purchase—for the full amount of the merchandise less a nominal shipping charge. Shipping charges, insurance, and oversize fees are ***not*** refundable.
If it has been greater than 10 days since you received your order, the manufacturer's warranty will apply, and no returns will be accepted.

Exceptions: Any products that are personalized or special-ordered cannot be returned or exchanged.

Batteries (individual cells or battery packs), videos (any format), software, cut-to-length cable, custom-made cable assemblies, and copyrighted materials (books, publications) are ineligible for refund or exchange. Personal use items—microphones, headphones, earphones, and all clothing items—are non-returnable/non-refundable.

If a return is necessary, you must ship your return postage-paid and insured to:

DX Engineering
ATTN: Returns Department
3800 Mogadore Industrial Pkwy.
Mogadore, OH 44260 USA

Include a copy of your receipt and a note explaining the reason for your return. Items without documentation may be sent back to you.

DX Engineering reserves the right to make exceptions to the above return policy depending upon specific circumstances.

hy-gain

T2X Tailtwister Series II Rotator

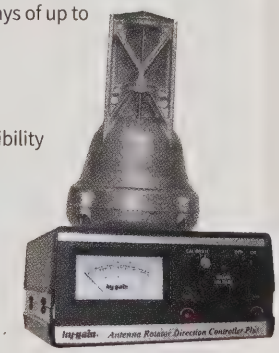
This is the complete tower-mounted unit of the T2X rotor, with clamps and mounting hardware included. Ideal for replacing an old Hy-Gain HAM-IV rotator or for use with a third-party controller such as the Green Heron RT-21, the T2X is designed for medium communications arrays of up to 20 square feet wind load area.

- Normal operation down to -30° F
- Steel alloy ring gear good to 100,000 PSI for maximum readability
- Indicator potentiometer with ferrite beads on wires to reduce RF susceptibility
- Weatherproof AMP connector plus 8-pin plug at control box
- Control Console #5137701

HGN-T-2X	Rotator with Controller	**$749.95**
HGN-T2XR	Rotator Unit without Controller	**$599.95**

HAM-IV Rotator

The HAM-IV, known as the "Ham-4," is the most popular rotator in the world. It is designed for medium-size communications arrays of up to 15 square feet wind load area.



- Normal operation down to -30° F
- Dual 98-ball bearing race for load bearing strength
- Electric locking steel wedge brake
- Ferrite beads on potentiometer wires reduce RF susceptibility
- Cinch plug connector plus 8-pin plug at control box—no screwdriver required
- N or S center of rotations scale on meter
- Low voltage control
- Handles masts up to 2 1/16" OD
- Power requirement: 110V, 60 Hz

HGN-HAM-IV	Rotator with Controller	**$624.95**
HGN-HAM-IVR	Rotator Less Controller	**$519.95**

hy-gain

CD-45II Metered Rotator with Friction Brake and Controller Combo Kit

The CD-45II handles 8.5 square feet when mounted inside a tower, or 5 square feet with a mast adapter.

- Bell rotator design gives complete weather protection
- Low temperature grease good to -30° F
- Dual 24-ball bearing race for load bearing support
- North center scale, dual lighted directional meter indicator
- 8-Pin plug/socket on control unit, snap-action control switches, low voltage control
- Handles masts up to 2 1/16" OD
- MSLD light duty lower mast support adapter included (not shown)
- Power requirement: 110V, 60 Hz

HGN-CD-45II	Rotator and Controller Combo Kit	**$449.95**

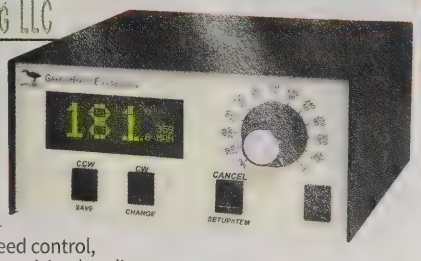
COM-CW3

DXE-CW8-HD

Multi-Conductor Control Wire

DXE-CW9	Shielded Control Wire, 9-Conductor	per foot	**$0.32**
DXE-CW9-1K	Shielded Control Wire, 9-Conductor, 1,000' spool		**$229.99**
DXE-CW9S	Shielded Control Wire, 9-Conductor Stranded	per foot	**$0.38**
DXE-CW8	Control Wire, 8-Conductor	per foot	**$0.49**
DXE-CW8-HD	Control Wire, 8-Conductor, Heavy-Duty	per foot	**$0.89**
DXE-CW8-HD-1000	Control Wire, 8-Conductor, Heavy-Duty, 1,000' spool		**$850.99**
COM-CW3	Wire, 3-Conductor	per foot	**$0.25**
COM-CW4	Wire, 4-Conductor	per foot	**$0.45**

Green Heron Engineering LLC



Universal Digital Rotor Controllers

Green Heron has added digital capabilities to its much-loved line of controllers. This new series features advanced, adaptable controls that give you unparalleled operational ability. These state-of-the-art digital controllers have variable speed control, automated PC control capability, and precision heading accuracy good to 1/10 of a degree. The controllers are fully programmable—you may modify speed, braking, limit, ramp, and a handful of other parameters.

- High-visibility LCD display with adjustable backlight brightness
- Point-and-shoot or manual push button operation plus presets
- Variable-speed control
- Start and stop ramping to reduce tower and antenna stresses
- Fully supports side mounted antennas, soft limits prevent running into tower
- Allows over-travel up to 720 degrees total
- Master/slave for stacked arrays, turn together or separately
- Easy front panel setup and setup utility software

Upgrading to the Deluxe version adds a sleek, black finish and an ultra-bright green vacuum florescent display.

GHE-RT-21-CDE	Universal Rotor Controller, Programmed for Hy-Gain and CDE Rotators	**$565.99**
GHE-RT-21D-CDE	Deluxe Universal Rotor Controller, Programmed for Hy-Gain and CDE Rotators	**$705.99**
GHE-RT-21-M2	Universal Rotor Controller, Programmed M2 Rotators	**$565.99**
GHE-RT-21D-M2	Deluxe Universal Rotor Controller, Programmed M2 Rotators	**$705.99**

ETX-ARS-USB-AE

ARS-USB Antenna Rotator Control Interfaces

EA4TX.COM

Imagine being able to control your rotator from your computer. Wire this interface to your existing controller, connect the console via USB to your PC and within a few minutes of setup, you'll be able to point your antennas automatically using your computer. The system is compatible with practically any tracking (satellite, logging, etc.) program and the display emulates the familiar Yaesu GS232A interface.

When used with an external 12-14 Vdc power supply, the EA4TX is also perfectly capable of operating without a computer. The unit can also be configured with its internal jumpers to make a great replacement rotator control. Software and a USB cable are included. Two versions are available: one for azimuth rotators, and the other for azimuth and elevation rotators. Your radio may require a special interface cable for the controller to work properly, see them below.

ETX-ARS-USB-A	Controller Interface, Azimuth	**$229.99**
ETX-ARS-USB-AE	Controller Interface, Azimuth and Elevation	**$312.99**
ETX-ARS-AZELDIN8	Cable, Azimuth and Elevation, Yaesu DIN-8	**$24.99**
ETX-ARSAZMINIDIN	Cable, Azimuth and Elevation, Yaesu Mini-DIN	**$24.99**
ETX-AS2X2	Antenna Switch, 2 Input Ports into 2 Output Ports	**$85.99**

EA4TX.COM

Interlock

Running a multi-op contest station? This handy unit keeps you compliant with the contests' multi-op rules. It's simple, if a transmit signal is detected that violates one of the pre-defined parameters, the Interlock simply stops the transmission.

There are three three functions:

- Multi/single permits only one transmit signal on one band.
- Multi/2 permits two transmit signals on two different bands.
- InBand permits just one signal between a radio and its associated InBand.

The Interlock supports up to five radios. Depending on your radio model, you may need a special interface cable, sold separately.

ETX-INTERLOCK-5R	Interlock Unit	**$249.99**
ETX-INTERLOCK-K3	Interface Cable for Elecraft K3	**$33.99**
ETX-INTERLOCK-Y	Interface Cable for Yaesu	**$33.99**

FREE standard shipping for orders over $99. See pg. 76 for details.

YSU-G-450A

YSU-G-2800DXA

YAESU
The radio

Heavy Duty Rotator Systems

Yaesu makes these rotator systems for large tower mounted antennas. They consist of a rotator and an azimuth/directional controller. The rotators use a variable-voltage DC motor, which eliminates the large starting capacitor found in other systems. The motor is housed in an aluminum enclosure and is permanently lubricated to ensure years of maintenance-free operation. Each system below handles a maximum mast OD of 2.5 inches and delivers 450 degrees of antenna rotation.

The sleek controllers match the aesthetics of Yaesu's radios perfectly. They allow you to select rotating speed and antenna heading. These rotator systems incorporate an auto "slow-stop" and a "slow-start" to better handle the momentum of a large antenna, which protects both the antenna and the rotator.

Medium Duty Rotator Systems

Perfect for smaller antennas, these systems incorporate the durable rotator design of their heavy-duty brethren. They handle 2.5 inch OD masts (smaller masts require an adapter, sold separately) and deliver 360 degrees of rotation. The G-450A is for rotation only, while the G-5500 system provides additional azimuth-elevation control.

Part Number	Turning Power	Wind Load Rating (Tower)	Max. Vertical Load	Price
Heavy Duty Rotator Systems				
YSU-G-2800DXA	2,170 In.-Lbs.	32.3 Sq. Ft.	661 Lbs.	**$1,369.99**
YSU-G-1000DXA	955 In.-Lbs.	23.7 Sq. Ft.	441 Lbs.	**$619.99**
YSU-G-800DXA	955 In.-Lbs.	21.5 Sq. Ft.	441 Lbs.	**$489.99**
Medium Duty Rotator System				
YSU-G-450A	516 In.-Lbs.	10.8 Sq. Ft.	220 Lbs.	**$299.99**
Medium Duty Azimuth-Elevation Rotator System				
YSU-G-5500	428 In.-Lbs.	10.8 Sq. Ft.	441 Lbs.	**$749.99**

K7NV Mast Clamps

Andress Technologies K7NV Mast Clamps for Rotators

New!

KNV-CLAMP-M

Kurt Andress, K7NV, is a longtime Ham with decades of experience providing unique equipment solutions for his fellow Amateur Radio operators. DX Engineering is pleased to announce that it is now a reseller of one of K7NV's signature upgrades: heavy-duty mast clamps for rotators. The precision-constructed clamps accommodate 2" diameter masts and replace stock units installed on the top of M2 Antennas OR-2800 Positioner Rotators and Yaesu G2800-DXA, G1000-DXA and G800-DXA rotators. These direct bolt-on replacements significantly improve the mast connection to the rotator and prevent mast slippage that can result with larger array setups. The mast-gripping pressure of these clamps can be adjusted by applying more torque to the included fasteners. The mast CLAMP-M plate has separate holes drilled for M2 or Yaesu rotators. Brand-specific bolt kits for mounting the clamps are sold separately.

KNV-CLAMP-M	2" Replacement Rotator Mast Clamp for Yaesu, M2	**$265.00**
KNV-M2-HDW	Hardware for M2 OR-2800 Rotator Mast Clamp	**$10.00**
KNV-YAESU-HDW	Hardware for Yaesu DXA Series Rotator Mast Clamp	**$10.00**

Channel Master

Light Duty Antenna Rotator System

New!

The Channel Master CM-9521HD Light Duty Antenna Rotator System makes a great choice for rotating UHF, VHF, 6 Meter, TV, FM or magnetic loop antennas. The unit—an upgraded version of the 9521A—delivers improved mechanical stability and an enhanced brake system. The control unit features an updated physical design with flush-mount front panel buttons, enhanced position reliability, a cool blue 0-360 degree azimuthal digital display and an integrated power supply. The system includes a durable, precision rotator encased in weatherproof, one-piece cast aluminum housing; programmable controller with companion IR remote control; mount clamps and hardware. The controller remembers your favorite antenna directions, allowing you to program in your favorite directions and rapidly return to your hottest DX path, repeaters, FM DX or TV DX station. The rotator handles antennas up to 100 pounds and fits up to a 2" O.D. mast.

CNM-9521HD	Light Duty Antenna Rotator System w/ Remote Control	**$149.00**

OR2800PXAZ Rotator Unit and Controller System

M2 ANTENNA SYSTEMS, INC. The New American Antenna

MSQ-RC2800PXAZ

M2 Antennas bundles its acclaimed OR2800PX Rotator Unit together with the RC2800PXAZ Rotator Controller in a complete system for your mast-mounted directional antennas. This package pairs the pinpoint accuracy of M2's controller with the rock-solid performance of the rotator.

These rotators feature a durable, high-torque motor in a package sized for most common towers and masts. They can handle 1,800 lbs. of vertical load and will easily turn large diameter masts with heavy directional antennas. The rotators use a precision worm drive to ensure accurate rotation. Their sturdy design handles a wind load up to 35 square feet. Though designed for the OR2800PXAZ controller, these rotators will work well with most third party rotator controllers.

M2 Antennas' RC2800PXAZ Rotator Controller is a full-function, variable speed azimuth-positioning unit with an easy-to-read multi-function digital display. It offers the ultimate control of your directional antenna systems. This controller is packed with new features including Auto-Calibrate, Auto Slow Down and M2's innovative One-Step Programming, which saves changes when you exit programming mode.

From the high-torque motor of the OR2800PX to the customizable microprocessor of the RC2800PXAZ, this system can be the perfect complement to your directional antenna setup. For complete package details, visit DXEngineering.com.

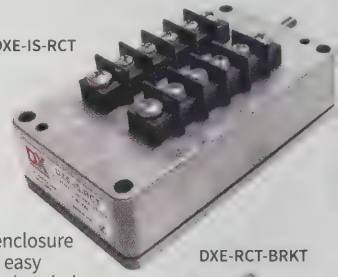
The rotator and controller are available separately, or bundled together in a comprehensive system.

MSQ-OR2800PXAZ	Rotator Unit and Controller System	**$2,729.99**
MSQ-OR2800PX	Rotator, Standard Drive Plate, Accepts 1.75"-3.125" OD Mast	**$1,868.99**
MSQ-RC2800PXAZ	Rotator Controller	**$818.99**

DX ENGINEERING

Rotator Control Line Protector

DXE-IS-RCT



Protect your control lines using this unit's eight individually shunt-protected terminals. When the voltage spikes above 82 Vdc in either polarity, the Rotator Control Line Protector automatically shunts the circuit to ground using an MOV for maximum surge protection.

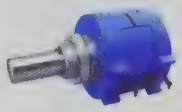
The protector is housed in a weatherproof metal enclosure with an integrated mounting stud, which makes it easy to attach to a tower leg or ground rod. Terminal gaskets help prevent any moisture from entering the housing.

DXE-RCT-BRKT

DXE-IS-RCT	Rotator Control Line Protector	**$169.99**
DXE-RCT-BRKT	Right Angle Flange Mounting Bracket	**$6.99**

DX ENGINEERING

Rotator Replacement Potentiometer

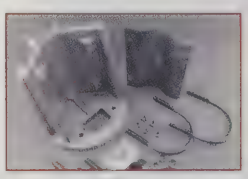


If you're using a model 1022 or 1032 TIC Ringrotor, then Mother Nature probably makes you replace your position potentiometer a lot. Make fewer trips up the tower with this fully weather-sealed replacement pot from DX Engineering.

DXE-TICGEN-POT	Rotator Replacement Potentiometer	**$19.99**

hy-gain

Lower Mast Support Kit



Designed to fit your HAM-IV, HAM-V, HAM-VII and T2X, this kit is perfect if you need to mount your rotator to a mast instead of a flat surface.

HGN-MSHD	Lower Mast Support Kit.	**$109.95**

Rotator Cable Connector Parts Pack

If you need to repair your T2X, HAM-V, HAM-IV, or HAM-VII Rotator's connectors, use this genuine Hy-Gain connector parts pack. It includes two receptacles, hardware and replacement pins.

HGN-870598	Rotator Connector Parts Pack	**$35.95**

Rotator Accessories

DXE-UBK-HYG-1	Replacement U-Bolt (single) Kit for Hy-Gain HAM-Series/CD-45	**$11.59**
DXE-UBK-HYG-2	Replacement U-Bolt (single) Kit for Hy-Gain T2X Rotor;	**$12.59**

We stock many more items than we can show. See them all at DXEngineering.com!

Universal Towers

Universal Towers was opened in 1969 as a family owned and operated business. Today, Amateur Radio operators everywhere take advantage of the company's finely constructed lightweight freestanding aluminum towers that deliver reliable performance and outstanding appearance, with no guy wires to get in the way. Made in the USA, Universal's standard and heavy-duty towers, from 30 to 100 feet, are easy to assemble and backed by an experienced team of engineers, technicians and support specialists focused on helping Hams get the results they want. DX Engineering also carries the full lineup of Universal tower bases, rotor mounts, roof mounts, top plates and bearings. **Enter "Universal Tower" at DXEngineering.com for details.**

DX ENGINEERING

DXE-AS455G

DXE-AS25G

Tower Accessory Shelves

Ever try to pound in a one-piece rotor plate to get it to fit in the midpoint of your tower? DX Engineering's new Tower Accessory Shelves are simpler to install and feature a thicker, stainless steel plate for greater stability. The DXE-AS-455G works with both 45G and 55G towers. It lets you easily mount rotators and thrust bearings thanks to its innovative multi-piece design. The shelf is bolstered by three adjustable, stainless steel corner brackets bolted to the plate. Each is secured flush to the tower with two V-bolt clamps for reduced flex.

The DXE-AS-25G makes an ideal choice for mounting a rotator to your 25G tower. This rotor plate model has formed integral brackets and includes a complete set of stainless steel mounting hardware.

DXE-AS25G	Shelf for Rohn 25G and Amerite 25	**$79.99**
DXE-AS455G	Shelf for Rohn 45G/55G and Amerite 45/55	**$124.99**

DX ENGINEERING

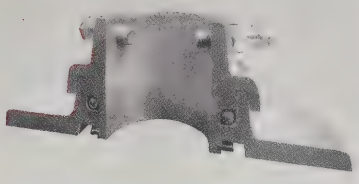
DXE-ABT3-24R

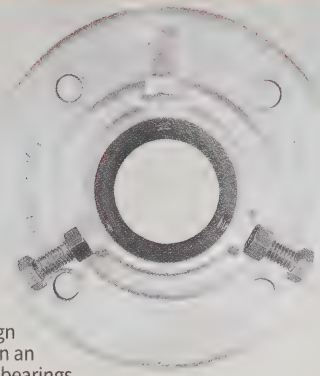
Antenna Boom Tubing Kits

Whether you're replacing a 3" boom or building a new one, here's the ideal solution for antenna boom projects. For 48' booms, the ABT3-48 kit comes with two 24' pieces of 3" x 0.120" wall tubing and one 24' long, 2.715" x 0.132" wall splice insert tube.
The ABT3-24R comes with one 24' piece of 3" x 0.120" wall tubing and one 24' long, 2.715" x 0.132" wall splice insert tube. This can be used to create a very strong 24' double wall boom, or an extended 36' assembly (cutting required). These high-strength, reinforced antenna boom tubes are suitable for Yagis and log periodics from 40 through 10 meters. Pieces require user drilling and fitting. Joining bolts are included. Other hardware must be user supplied.

DXE-ABT3-24R	Antenna Boom Tubing Kit, Up to 36'	**$489.99**
DXE-ABT3-48	Antenna Boom Tubing Kit, 48'	**$599.99**

DX ENGINEERING





Advanced Design Thrust Bearing

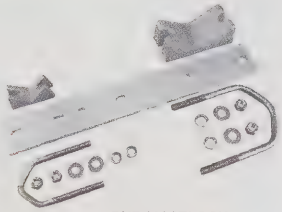
These Advanced Design Thrust Bearings from DX Engineering improve on the standard design in two key areas. First, the ball bearings ride on an all-metal surface, not a seam like other thrust bearings, to promote a longer service life. The precision bearings are made to much tighter tolerances, eliminating the slop found in other thrust bearings.

Secondly, our Mast Thrust Bearings can handle much greater static loads than other models. Not only does that reduce stress on the rotator, it makes rotator service possible without removing your antenna—think about how much hassle, time and money that could save! They fit either a 2" or 3" OD mast and most common tower sizes from Rohn and American Tower.

DXE-TB-300	Advanced Design Thrust Bearing, 2" OD Mast	**$169.99**
DXE-TB-400	Advanced Design Thrust Bearing, 3" OD Mast	**$239.99**

DX ENGINEERING

Mastlock Mast Anti-Rotation Assembly



DXE-MASTLOCK

Bid farewell to the frustration of battling unwanted mast movement when you've got work to do. Made exclusively for use with Rohn and Amerite towers, the Mastlock enables you to lock your tower mast in position and remove the rotor without having the mast slip downward. It's also perfect for keeping your antenna in place when performing maintenance. Use of two Mastlock assemblies is recommended to keep the mast centrally located. The Mastlock comes with 6061-T6 aluminum anti-rotation bracket and stainless steel V-clamps and hardware. Compatible with Rohn and Amerite 25, 45 and 55 Series towers.

DXE-MASTLOCK	Anti-Rotation Tower Assembly	**$43.99**

Hummelmasten MiniXL Tower

Nobody appreciates the spirit of innovation like an Amateur Radio enthusiast in search of a better, easier and more enjoyable way to operate. It's one reason why Hummelmasten's time- and hassle-saving MiniXL Tower continues to excite Hams around the globe. Now DX Engineering is pleased to introduce this complete square aluminum tubular tower and antenna mast system to North America. It features an ingenious crank-up two-tier carriage system that mounts both a rotator and a mast bearing, or a stationary mast. Suitable for small- to mid-size beams, verticals and wire antennas, the 9 meter tall (29.5') MiniXL is available with either two wall mounts or with one wall and one ground mount. Built with rugged 120mm (4.724") square aluminum tubing, with 3mm (0.118") wall thickness, the MiniXL can handle over 15 square feet of wind load. Mini XL carriages are drilled specifically for Yaesu rotators and thrust bearings, also available from DX Engineering. Select your preferred tower packages by choosing one of three eave-clearance, wall-mount stand-off sizes, 300mm (11.811"), 400mm (15.748") and 500mm (19.685"), and either closed or open back carriages. For complete details, enter "MINIXL" at DXEngineering.com.

DXE-MINIXL-PKG_	MiniXL Tower Packages	from **$2,385.00**

Top-Quality User Manuals

All DX Engineering branded products come with detailed, full-color user manuals that go above and beyond the competition. Crafted by a staff technical writer with years of Ham Radio experience, the manuals provide clearly written instructions and advice on maximizing performance. They're also available via free download from our website for anyone who wishes to research product specifications before making a purchase.

Call us for easy special orders!

ROHN™ Products LLC

Commercial Towers

DX Engineering is an Authorized Distributor of Rohn Commercial Tower products and accessories. We have the Rohn products you need to solve your tower structural needs—contact us for technical information and availability.

Rohn has been the world leader in tower design and manufacturing for more than six decades. Rohn maintains one of the largest manufacturing and staging facilities in the industry—it is committed to supplying the best.

Designed for areas where land cost or availability are not an issue, Rohn G-series guyed towers provide one of the most cost effective solutions in the industry. Guyed towers install quickly and are often the choice of broadcast communications tower stations and backbone system providers.

All G-series towers are built with high strength steel tubing that is hot-dip galvanized after fabrication. Rohn's exclusive Zig-Zag® solid rod bracing provides exceptional strength.

All Rohn towers, poles and masts must be installed and dismantled by trained personnel. See the Rohn manuals and drawings for detailed information.

45G Tower and Accessories

The 45G is a true multi-use structure that provides excellent strength for applications up to 300' tall.

- Completely hot-dip galvanized after fabrication
- Built on a stable 16.75" equilateral triangle design
- High strength tubular legs joined by Zig-Zag® cross members
- Continuous solid round steel bracing
- Each section is shipped with all nuts and bolts

ROH-45G	45G Standard Section, 10'	**$264.99**
ROH-45AG2	45G Top Section, 9'	**$349.99**
ROH-SB45G	45G Short Base, 5'	**$134.99**
ROH-BPL45G	45G Top Plate for TB3 & TB4 Bearings	**$229.99**
ROH-BPC45G	45G Concrete Base Plate	**$129.99**
ROH-AS455G	45G & 55G Accessory Shelf	**$115.99**
ROH-GA45GD	45G Guy Bracket Assembly with Hardware	**$181.99**

Turnbuckle

Never trust your guy line tension to an average hardware store turnbuckle. Only use genuine Rohn accessories. This turnbuckle has a 1,200 pound working load with an extended/retracted length of 12/18 inches.

ROH-3-8TBE-J	Turnbuckle	**$42.99**

25G Tower and Accessories

The Model 25 originated at Rohn and the original still stands as the benchmark of lightweight guyed tower design quality. The 25G is available in the standard 10' section length and in a special order, UPS-shippable 7' length. The 25G uses double-bolted joints—proven to be the best method of joining tower sections for sturdiness and dependability. The 25G may be built to 190' tall.

- Completely hot-dip galvanized after fabrication
- Built on a stable 11.25" equilateral triangle design
- High strength tubular legs joined by Zig-Zag® cross/members, continuous solid round steel bracing
- Each section length is shipped with all required nuts and bolts

ROH-25G	25G Standard Section, 10'	**$125.99**
ROH-25AG2	25G Top Section, Accepts 2" OD Mast	**$199.99**
ROH-SB25G5	25G Short Base, 5'	**$119.99**
ROH-SB25G	25G Short Base, 3.33'	**$79.99**
ROH-25GSSB	25G Self Supporting Base Plate	**$209.99**
ROH-BPH25G	25G Hinged Base Plate	**$289.99**
ROH-SBH25G	25G Short Hinged Base, 3.33'	**$249.99**
ROH-SDB25G	Drive-In Base Plate for Temporary Use	**$259.99**
ROH-AS25G	25G Single Accessory Shelf	**$64.99**
ROH-GA25GD	25G Guy Bracket Assembly with Hardware	**$165.99**
ROH-UHF25G	25G Side Arm Mount	**$34.99**
ROH-BPC25G	Concrete Base Plate for 25G	**$75.99**

Work Platform

Don't get your feet strained in the cross-bracing; install this platform on your Rohn G-series Tower and perform your repairs safely. They snap into place and let you work without strain.

ROH-WP25G	Work Platform, 23 G-Series	**$145.99**
ROH-WP45G	Work Platform, 45 G-Series	**$165.99**
ROH-WP55G	Work Platform, 55 G-Series	**$269.99**

Erection Fixture

You probably call this a Gin Pole; it is a must-have tool to safely raise or repair your tower. The fixture is designed for 25G or 45G towers. It has the correct sheave and clamps, you supply the rope and muscle.

ROH-EF2545	Erection Fixture	**$919.99**

Installation Accessories

Part Number	Description	Price
ROH-3-16EHS500	HDG Guy Wire, 3/16" EHS x 500' Coil	**$155.99**
ROH-3-16EHS1000	HDG Guy Wire, 3/16" EHS x 1,000' Coil	**$289.99**
ROH-1-4EHS500	HDG Guy Wire, 1/4" EHS x 500' Coil	**$179.99**
ROH-1-4EHS1000	Steel Guy Wire, 18-Gauge, 1,000' Spool	**$329.99**
ROH-BG2142	Big Grip, 3/16" with End Sleeve	**$6.99**
ROH-BG2144	Big Grip, 1/4" with End Sleeve	**$7.99**
ROH-GAC3455TOP	Anchor Rod, 3455, .75" dia. x 7'	**$149.99**
ROH-GAR30	Anchor Rod, Eye, Rated to 7,330 Lbs.	**$45.99**
ROH-EP25343	Equalizer Plate Assembly 25, 3-Hole	**$51.99**
ROH-EP25345	Equalizer Plate Assembly 25, 5-Hole	**$65.99**
ROH-25AJBK	Replacement 25AG Joint Bolt Kit	**$6.99**
ROH-45JBK	Replacement 45G Joint Bolt Kit	**$13.99**
ROH-55JBK	Replacement 55G Joint Bolt Kit	**$14.99**
ROH-HBUTVRO	Universal HD House Bracket, 18-36" Standoff for 25G, 45G, 55G	**$239.99**
ROH-3-4X12PP	Base Pier Pin, 3/4" x 12"- 25G, 45G, 55G	**$22.99**
ROH-1-2X12BB	Tower Base J-Bolt, 1/2" Dia., 12" Long	**$18.99**
ROH-5-8X12BB	Tower Base J-Bolt, 5/8" Dia., 12" Long	**$13.99**

ROHN™ Products LLC

ROHN™ Products LLC

Telescoping Masts

Rohn telescoping masts are available in 28', 34', 36' and 43' nominal heights. They are pre-galvanized for corrosion protection and come assembled with hardware. All masts must be guyed or bracketed; installation should be done by experienced professionals. Telescoping masts are not recommended for commercial, CB or beam antenna installations. Truck Freight on "H" Series.

ROH-H30	28' Telescoping Mast	**$85.99**
ROH-H40	36' Telescoping Mast	**$125.99**
ROH-H50	43' Telescoping Mast	**$165.99**
ROH-9H50	34' Telescoping Mast	**$159.99**

Telescopic Mast Ground Mount

Built for your Rohn H and 9H (or any other 1.25"-1.5" telescopic mast), simply drive this ground mount into the soil, add your guy lines and get on the air.

ROH-GTMBL	Ground Mount	**$55.99**

Professional Guy Line Tension Gauges

Avoid serious safety issues by ensuring that your guy lines are properly tensioned. These gauges offer professional-level accuracy and are easy to use. They'll gauge the tension your tower guy lines, large tent supports and sailboat rigging. The gauges accept lines from 3/32" to 3/8" OD.

LOO-PT-1	3/32"-5/32" Tension Gauge, 70-800 Lb. Range	**$109.99**
LOO-PT-2	3/16"-1/4" Tension Gauge, 180-2,000 Lb. Range	**$112.99**
LOO-PT-3	1/4"-3/8" Tension Gauge, 550-4,500 Lb. Range	**$229.99**

Insulator and Bent Pin Shackle Kits

DXE-INS-P2

These kits are the ideal way to secure your guy lines to your tower, while protecting your antenna from RF noise generated by those guy lines. They feature porcelain insulators and galvanized steel shackles. Each shackle accepts Big Grip dead ends and is compatible with both metallic and non-metallic guy lines. The kits include three insulators and three shackles.

DXE-INS-P1	Kit, 504-Style Insulators, 12,000 Lb. Break Strength	**$164.98**
DXE-INS-P2	Kit, 502-Style Insulators, 10,000 Lb. Break Strength	**$154.98**

Call us for easy special orders!

DX ENGINEERING® PHILLYSTRAN

Phillystran Tail Kits

Using a steel tail to terminate your non-metallic guy line is a smart way to protect it from damage—whether its from vandals, brush fires, lawn mowers, fertilizers or ambitious rodents. As recommended by Phillystran, DX Engineering assembled kits to make it easy to install or upgrade your guying system. The kits include 12 feet of galvanized steel guy line, a porcelain strain insulator, Big Grips (for the dead end only), a heavy duty thimble and cable ties. You supply the guy line and appropriate Big Grip. The kits below are designed for three guy lines. Find individual sets at DXEngineering.com.

Part Number	Guy Line Diameter	Insulator Strength Lbs.	Breaking Strength Lbs.	Price
DXE-PT-4000-3P	0.187"	10,000	3,990	**$179.99**
DXE-PT-6700-3P	0.250"	10,000	6,650	**$209.99**
DXE-PT-11200-3P	0.313"	12,000	11,200	**$239.99**

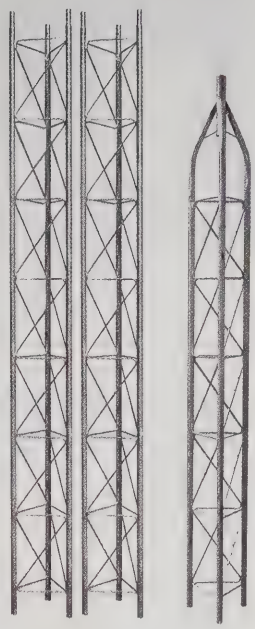
American Tower Company
Designers & Manufacturers of Communication Towers
Since 1953

Amerite 25 Series Bracket Tower Packages

American Tower has done your component-matching homework for you by building these handy 30 foot tower packages. You'll still have to add the concrete and any add-on tower accessories, but these kits are an excellent starting point. Learn more about each one's exact contents at DXEngineering.com.

TOW-AME25-K-30B3 Tower Package, with AME25-B3 Base **$655.99**

TOW-AME25-K30BGR Tower Package, with AME25-BGR Base; **$629.99**



TOW-AME25-K30BGR

Amerite Tower Sections and Components

American Tower's economical and versatile Amerite 25 Tower Series is a popular choice for many Amateur Radio applications. Depending on the antenna wind load, the 25 Series can be used in self-supporting, guyed and bracketed installations. Each tower section is hot-dip galvanized for corrosion resistance and double-bolted to create an extra-secure junction. The sections are made with steel tubing carrying a 50,000 PSI yield strength to meet ASTM 123 standards. The tower sections have 11.25" leg spacing, with 1.25" OD tubing legs.

Similar to the 25 Series, the Amerite 45 Series has wider, 16.75" leg spacing, while the 55 series has 17" leg spacing. They are both well suited to Ham use.

American Tower Company Amerite tower products are fully compatible with their respective ROHN counterparts, which means if the need arises, you have a broader pool of installation and service parts in the future.

Part Number	Description	Price
Amerite 25 Series Sections and Components		
TOW-AME25	Tower Section, 10'	$119.99
TOW-AME25-6	Tower Section, 6'	$139.99
TOW-AME25-T	Top Section, 9'	$135.99
TOW-AME25-6T	Top Section, 6'	$147.99
TOW-AME25-TRB	Top Section, Removable Mast Bushing, 9'	$145.99
TOW-AME25-6TRB	Top Section, Removable Mast Bushing, 6'	$157.99
TOW-AME25-ABC	Anchor Base Cage	$159.99
TOW-AME25-AG2E	Top Section, Tube on Top, 9.75'	$165.99
TOW-AME25-EMT	Top Section, Extended Mast, 10'	$159.99
TOW-AME25-AS	Accessory Shelf	$64.99
TOW-AME25-B3	Base Section, 3.3'	$72.99
TOW-AME25-GB	Guy Bracket Assembly	$115.99
TOW-AME25-B5	Base Section, 5'	$115.99
TOW-AME25-BGR	Base Plate, Ground/Roof Mount	$69.99
TOW-AME25-BT	Tilt Base, 3.3'	$109.99
TOW-AME25-BH	Base Plate, Hinged, Ground/Roof Mount	$199.99
TOW-AME25BK	Joint Bolt Kit, Replacement Hardware	$7.99
TOW-AME25-DIB	Drive-in Tower Base Plate	$129.99
TOW-AME25-TBA	Hinged Base Adapter	$309.99
TOW-AME25-WM	Wall Mount Support for Hinged Plate Mount	$309.99
TOW-AME-DA-18	Upper Tower Bracket for AME25-WM	$69.99
Amerite 45 Series Sections and Components		
TOW-AME45	Tower Section, 10'	$259.99
TOW-AME45-B5	Tower Section, 5'	$132.99
TOW-AME45-T	Top Section, 9'	$299.99
TOW-AME45-55-AS	Accessory Shelf	$115.99
TOW-AME45-ABC	Anchor Base Cage	$199.99
TOW-AME45-BGR	Base Plate, Ground/Roof Mount	$126.99
TOW-AME45-BH	Base Plate, Hinged, Ground/Roof Mount	$525.99
TOW-AME45BK	Joint Bolt Kit, Replacement Hardware	$13.99
Amerite 55 Series Sections and Components		
TOW-AME55	Tower Section, 10'	$345.99
TOW-AME55-B5	Base Section, 5'	$185.99
TOW-AME55-BGR	Base Plate, Ground/Roof Mount	$149.99
TOW-AME55BK	Joint Bolt Kit, Replacement Hardware	$14.99

Let's Talk

Selecting the right equipment for your shack can get confusing. Whether you're addressing a simple compatibility issue or a tricky technical problem, we'll help you work through it. We're here from 8:30 am to 4:30 pm ET Monday through Friday, ready to offer advice.

Phillystran® Non-Metallic Tower Guy Line

PHILLYSTRAN

These insulator-free, non-metallic guys have been protecting the towers of knowledgeable Amateur Radio operators since 1973. Following their introduction, Phillystran Guy Lines have been installed on more than one thousand commercial broadcast towers worldwide. Electrically transparent Phillystran tower guys are protected by an extruded jacket, providing excellent resistance to weather and abrasion.

- Complete isolation of tower-guy system from the antenna field
- Improved signal coverage, eliminating distortion caused by re-radiated signals
- Quick, easy, maintenance-free tower installations
- A neat tower appearance, free of corroded steel guys and troublesome ceramic insulators (solving arcing white noise issues, too)
- No need to calculate guy lengths to avoid guy line resonance
- No insulators required
- None of the stretching or aging problems associated with conventional synthetic ropes
- No more zapping, snapping and crackling across porcelain insulators

PHI-HPTG-1200I 4mm Dia., 1,200 Lbs. Break Strength ..... per foot **$0.69**

PHI-HPTG-2100I 6mm Dia., 2,100 Lbs. Break Strength ..... per foot **$0.99**

PHI-HPTG-4000I 8mm Dia., 4,000 Lbs. Break Strength ..... per foot **$1.39**

PHI-HPTG-6700I 9mm Dia., 6,700 Lbs. Break Strength ..... per foot **$1.89**

PHI-HPTG-11200I 11mm Dia., 11,200 Lbs. Break Strength ..... per foot **$2.99**

Phillystran® Big Grip Dead-Ends

Phillystran has answered the call for field-installable, nonmetallic tower-guy systems with HPTG-I and PLP Big Grip Dead-Ends. Phillystran Big Grip Dead-Ends have a variety of unique features:

- Grip designed to match rope twist direction (RHL)
- Special-sized wires for ease of application
- Galvanized steel and "C" coat construction
- Color-coded for ease of identification
- Longer length to match Phillystran's high performance forged steel galvanized wire rope clips are recommended for the small PHI-HPTG-1200I Guy Line

PHILLYSTRAN

PHI-PLP-2738 Blue Tag, Use with HPTG-2100I Guy Line **$12.99**

PHI-PLP-2739 Yellow Tag, Use with HPTG-4000I Guy Line **$16.99**

PHI-PLP-2755 Red Tag, Use with HPTG-6700I Guy Line **$23.99**

PHI-PLP-2558 Black Tag, Use with HPTG-11200I Guy Line **$28.99**

DX ENGINEERING

Vinyl End Caps for Phillystran® Guy Line

Heavy-duty vinyl to cover and protect cut cable ends.

DXE-H166 Use with HPTG-1200I Guy Line, Pack of 20 ..... **$8.99**

DXE-H165 Use with HPTG-2100I Guy Line, Pack of 20 ..... **$8.99**

DXE-H164 Use with HPTG-4000I Guy Line, Pack of 20 ..... **$8.99**

DXE-H142 Use with HPTG-6700I Guy Line, Pack of 20 ..... **$8.99**

DXE-H204 Use with HPTG-11200I Guy Line, Pack of 20 .... **$8.99**

LOOS & CO. CABLEWARE® DIVISION

Guy Line Clamp Kit

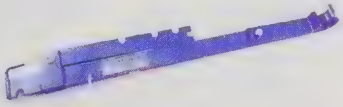
Use this kit to properly terminate and secure your guy lines. The kit includes six galvanized steel clamps that fit cable ranging from 3/16" to 7/32" OD. For larger size guy line, DX Engineering recommends Big Grips from Phillystran.

LOO-CP2-6P-6 Guy Line Clamp Kit, Set of 6 ..... **$4.29**

Heavy Duty Galvanized Rope Thimbles

Part Number	For Cable Diameter	Overall Length	Overall Width	Price Set of 2
LOO-EY414-8-2	1/4"	2 1/4"	1 1/2"	$2.05
LOO-EY414-10-2	5/16"	2 1/4"	1 13/16"	$2.79
LOO-EY414-12-2	3/8"	3"	2 1/8"	$3.29
LOO-EY414-14-2	7/16"	3 1/2"	2 3/8"	$5.35
LOO-EY414-16-2	1/2"	3 5/8"	2 3/4"	$7.39

Tower Assistant



You spent a lot of money on your tower—don't risk damaging it with errant hammer blows. American Tower makes this tool precisely for its Amerite Tower designs. It has multiple uses, from splitting apart stubborn sections to aligning sections together. The unique leverage mechanism will save you from back and arm strain, too.

TOW-AME-TAT Tower Assistant **$129.99**

Visit DXEngineering.com for the latest limited-time offers and special savings!

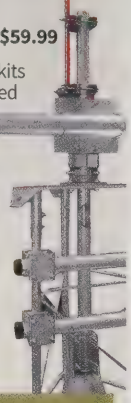
Lightning Rod Mounting Solutions from DX Engineering

DX ENGINEERING

These specially designed clamps are the best way to affix a lightning rod to the top of your tower. The heavy duty, stainless steel assemblies are rugged enough to handle severe weather and will resist corrosion for years of outdoor use. DX Engineering Lightning Rod Mast Mounts will work with lightning rods from 5/8"-3/4" in diameter, and will clamp to any 2"-3" OD mast. The mounting hardware is sold separately; see the table below.

DXE-LRMM Lightning Rod Mast Mounts **$59.99**

Lightning Rod Mast Mount Fasteners - Here are the complementing fastener kits for the DX Engineering Lightning Rod Mast Mounts. Each set contains 8 threaded rods with 32 matching hex nuts, plus 16 flat and 16 lock washers. Choose your kit based on the OD of the mast you're mounting to.



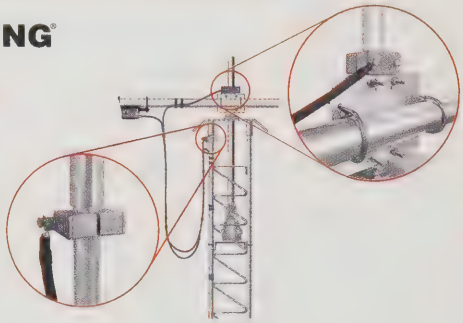
Part Number	Bolt Length	For Mast OD	Price
DXE-LRMM-FAST7	7"	2"	**$29.49**
DXE-LRMM-FAST7-5	7.5"	2.5"	**$29.99**
DXE-LRMM-FAST8	8"	3"	**$30.99**

Lightning Rod Kits - If you want a complete lightning rod solution for your tower, we've built these combos that bundle together our Lightning Rod Mast Mounts, the appropriate Fastener kit, plus an Erico Lighting Rod. If you have questions on how to properly safeguard your tower from lighting strikes, call us—we'll be happy to help.

Part Number	For Mast OD	Rod Length	Rod OD	Rod Tip	Included Fasteners	Price
DXE-LRMM-2-434	2"	4'	0.750"	Pointed	FAST7	**$309.39**
DXE-LRMM-2-458B	2"	4'	0.625"	Pointed	FAST7	**$172.39**
DXE-LRMM-2-458BS	2"	4'	0.625"	Safety	FAST7	**$165.39**
DXE-LRMM-2-834	2"	8'	0.750"	Pointed	FAST7	**$309.39**
DXE-LRMM-3-434	3"	8'	0.750"	Pointed	FAST8	**$310.89**
DXE-LRMM-3-458B	3"	4'	0.625"	Pointed	FAST8	**$173.89**
DXE-LRMM-3-458BS	3"	4'	0.625"	Safety	FAST8	**$166.89**
DXE-LRMM-3-834	3"	8'	0.750"	Pointed	FAST8	**$310.89**

DX ENGINEERING

Bearing Bypass Ground Kits



When lightning hits your tower, the first place that massive energy jumps through is the mast thrust bearing. That's bad news for the thrust bearing but worse news for you. Replacing it means removing your antennas—a process that is both time-consuming and really, really expensive.

These kits use heavy-gauge, flexible cable to safely guide lightning energy away from the thrust bearing and down your tower to ground. They're easy to install and cheap insurance against a costly repair.

DXE-BBGK-2-25-P Kit for 2" Mast and Rohn 25G/45G Tower Leg **$145.93**
DXE-BBGK-2-55-P Kit for 2" Mast and Rohn 55G Tower Leg **$147.03**
DXE-BBGK-3-25-P Kit for 3" Mast and Rohn 25G/45G Tower Leg **$169.43**
DXE-BBGK-3-55-P Kit for 3" Mast and Rohn 55G Tower Leg **$170.53**

Heavy-Duty 4130 Chromoly Steel Masts

Serious antenna builders know you can't compromise on anything. With that in mind, DX Engineering offers you super-strong masts perfectly suited to Amateur Radio applications. Available in 2 or 3 inch outside diameters, these galvanized steel masts have a 1/4" wall thickness for extra rigidity. The masts have a certified yield stress rating over 100,000 psi, a minimum Rockwell hardness of 96, and a galvanized coating that meets ASTM A123/M specifications.

They are sold in 22' sections; DX Engineering will help arrange shipping and ensure that the ordering process will go smoothly. Call 800-777-0703 to get started and use the online Mast Load Estimator tool at DXEngineering.com to test your proposed installations.

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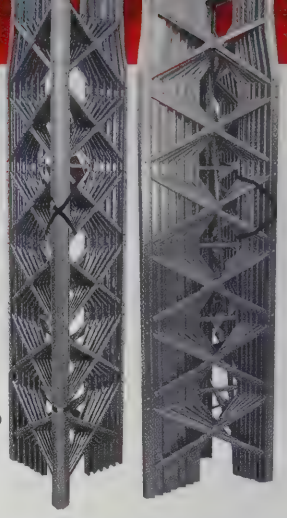
DXE-ST200CM-22 Heavy-Duty 4130 Chromoly Steel Mast, 2" OD **$399.99**
DXE-ST300CM-22 Heavy-Duty 4130 Chromoly Steel Mast, 3" OD **$589.99**

TBX Tower



TBX-TBX48 TBX-THBX56

Packaged Tower Kits and Accessories

These TBX Packaged Tower Kits eliminate guesswork and make it possible for anyone to erect a self-supporting tower. The kits include offset lattice style tower sections that create a strong, step-up design. The sections are made from contoured steel that is galvanized to resist the elements. The kits will include a rotor plate, top plate, hardware pack and a set of top-section steps. Base stubs must be ordered separately.

TBX also offers Base Hinge Kits that allow you to assemble the tower on the ground and raise it into place. The heavy-duty hinges are strong enough to handle a tower up to 64 feet. TBX Step Kits makes climbing your tower much safer and more comfortable. Both the Hinge Kits and Step Kits include all the hardware you'll need for installation.

More TBX Packaged Tower Kits and accessories are available at DXEngineering.com.

Part Number	Height	Max. Wind Load	Notes	Price
TBX-TBX40	40'	6 Sq. Ft.	Includes 8'/1.25" OD Mast	**$999.99**
TBX-TBX48	48'	6 Sq. Ft.	Includes 8'/1.25" OD Mast	**$1,299.99**
TBX-TBX56	56'	6 Sq. Ft.	Includes 8'/1.25" OD Mast	**$1,672.99**
TBX-THBX24	24'	10 Sq. Ft.	Heavy Duty	**$636.99**
TBX-THBX32	32'	10 Sq. Ft.	Heavy Duty	**$917.99**
TBX-THBX40	40'	10 Sq. Ft.	Heavy Duty	**$1,202.99**
TBX-THBX48	48'	10 Sq. Ft.	Heavy Duty	**$1,508.99**
TBX-THBX56	56'	10 Sq. Ft.	Heavy Duty	**$1,836.99**
TBX-THDBX24	24'	18 Sq. Ft.	Extra Heavy Duty	**$749.99**
TBX-THDBX32	32'	18 Sq. Ft.	Extra Heavy Duty	**$1,042.99**
TBX-THDBX40	40'	18 Sq. Ft.	Extra Heavy Duty	**$1,348.99**
TBX-THDBX48	48'	18 Sq. Ft.	Extra Heavy Duty	**$1,675.99**
Base Hinge Kits				
TBX-HB36	Base Hinge Kit for 1.5" OD Stud Pipe			**$354.99**
TBX-HB78	Base Hinge Kit for 2.0" OD Stud Pipe			**$434.99**
Step Kits				
TBX-SK1	Step Kit for TBX1A Series Tower			**$9.99**
TBX-SK2	Step Kit for TBX2/2A Series Tower			**$11.99**
TBX-SK3	Step Kit for TBX3/3A Series Tower			**$12.99**

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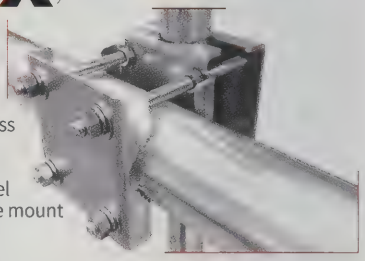
Genius Clamps

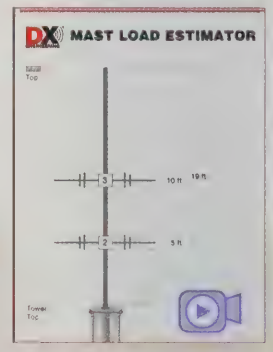


If you've ever struggled to mount a horizontal cross bar to a piece of vertical tubing, then you'd probably call these "Genius!" Clamps, too. They're the ideal way to create a tower standoff to side-mount an extra antenna. These stainless steel clamps are sized for 1" to 2" OD pipe, in both horizontal and vertical orientation. Two versions are available, one for a parallel standoff, and another to create a right angle mount that's perfect for installing a vertical mast. Genius Clamp hardware is sold separately.

DXE-SSGC-2P Genius Clamps, Right Angle, Pair **$59.99**
DXE-SSGC-2VP Genius Clamps, Parallel, Pair **$64.99**

Genius Clamps Hardware Sets-Since we don't know your specific application, we don't include hardware. Hex bolt fasteners for Genius Clamps are available separately; select the sizes you need in the table nearby. The sets include 8 full-thread bolts or rods, 16 nuts, 8 flat washers and 8 split washers. The thread is 5/16"-18.

Part Number	Bolt Length	Price
DXE-SSGCBOLT-4	4"	**$13.49**
DXE-SSGCBOLT-4-5	4.5"	**$13.49**
DXE-SSGCBOLT-5	5"	**$14.99**
DXE-SSGCBOLT-5-5	5.5"	**$15.99**
DXE-SSGCBOLT-6	6"	**$16.49**
DXE-SSGCBOLT-6-5	6.5"	**$18.99**



FREE DX Engineering Mast Load Estimator

If you're designing a tower installation, visit DXEngineering.com and use the free online Mast Load Estimator. First decide if you're using a 2" or 3" OD mast and then enter its overall height. Next, add up to five antennas, with their height from the tower top and wind load area. The Mast Load Estimator will calculate if your configuration will work. It's totally free and you'll only find it at DXEngineering.com. Check out the video online.

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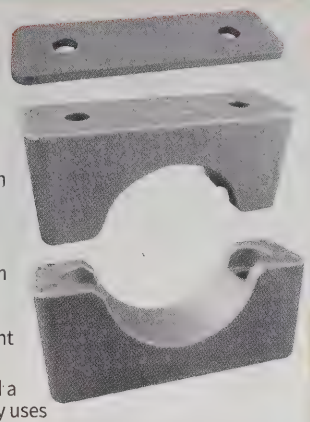


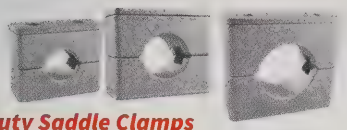
Super Duty Saddle Clamps

Super Duty Saddle Clamps are perfect for building large Yagi or LPDA antennas (where maximum strength is critical). These clamps attach to the tubing and establish a secure mounting point for a flat plate or surface.

Super Duty Saddle Clamps provide maximum grip on booms, masts and element tubing. Unlike stamped or machined-type clamps, Super Duty clamps are cast from rugged aluminum with a special textured surface to grip the tubing. These new clamps mean you can choose an exactsize to create an incredibly secure fit that is resistant to torque, wind and weather.

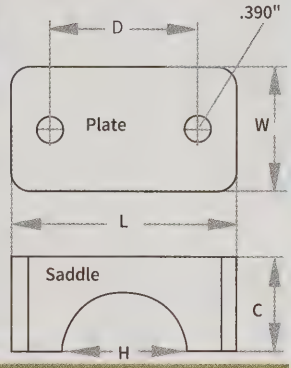
These clamps consist of two cast aluminum saddles and a stainless steel reinforcement plate. Since there are many uses for these clamps, we don't include hardware. Our armor-coated bolt sets are available separately. Typical Super Duty Clamp mounting applications on a 1/4" plate require a minimum length bolt set.

Super Duty Saddle Clamps fit 2.00", 2.50" and 3.00" OD tubing. A thread lubricant and anti-seize compound, like Jet-Lube SS-30, is highly recommended during installation.



Heavy Duty Saddle Clamps

If a design calls for typical saddle clamps but you want something with more strength, DX Engineering now offers a range of Heavy Duty Saddle Clamps. They're similar to the Super Duty Saddle Clamps, only they're available for smaller diameter tubing and have the same footprint of a standard saddle clamp. These new Heavy Duty Saddle Clamps fit 0.75", 1.00", 1.25", 1.50", 1.75" and 2.00" OD tubing. Find each clamp's matching Bolt and Nut set in the table below.



Part Number	Nominal OD	L	W	D	H	C	Price
Super Duty Saddle Clamps							
DXE-SDS-300P	3.000	4.650	2.500	3.400	3.000	2.060	**$59.99**
DXE-SDS-250P	2.500	4.150	2.250	2.900	2.500	1.820	**$49.99**
DXE-SDS-200P	2.000	3.640	2.000	2.400	2.000	1.570	**$39.99**
Heavy Duty Saddle Clamps							
DXE-HDS-200AP	2.000	3.648	1.000	2.375	2.000	1.565	**$14.49**
DXE-HDS-175AP	1.750	3.148	1.000	2.000	1.750	1.315	**$13.99**
DXE-HDS-150AP	1.500	2.898	1.000	1.750	1.500	1.190	**$13.49**
DXE-HDS-125AP	1.250	2.398	1.000	1.500	1.250	1.065	**$12.99**
DXE-HDS-100AP	1.000	2.148	1.000	1.250	1.000	0.815	**$12.49**
DXE-HDS-075AP	0.750	1.898	0.750	1.000	0.750	0.690	**$11.99**

Saddle Clamp Dimensions in Inches

Bolt and Nuts Sets

These armor-coated bolt sets are specifically tailored to the DX Engineering Super Duty and Heavy Duty Saddle Clamps. The sets include (2) Grade 8 hex head bolts, (2) split washers, (4) flat washers and (2) nuts.

Part Number	Thread Pitch	Length	Thread Length	Price
Armor Coated Bolt Sets				
DXE-SDSBOLT-6-5	3/8"-16	6.500	1.000 to 1.313	**$11.99**
DXE-SDSBOLT-6	3/8"-16	6.000	1.000 to 1.313	**$11.49**
DXE-SDSBOLT-5-5	3/8"-16	5.500	1.000 to 1.313	**$10.99**
DXE-SDSBOLT-5	3/8"-16	5.000	1.000 to 1.313	**$9.99**
DXE-SDSBOLT-4-5	3/8"-16	4.500	1.000 to 1.313	**$9.49**
DXE-HDSBOLT-4	1/4"-20	4.000	0.750 to 1.000	**$6.59**
DXE-HDSBOLT-3-5	1/4"-20	3.500	0.750 to 1.000	**$5.99**
DXE-HDSBOLT-2-75	1/4"-20	2.750	0.750 to 1.000	**$5.49**
DXE-HDSBOLT-2-5	1/4"-20	2.500	0.750 to 1.000	**$4.99**
Stainless Bolt Sets				
DXE-HDSBOLT4-5S	3/8"-16	4.500	0.750 to 1.000	**$5.79**
DXE-HDSBOLT3-75S	1/4"-20	3.750	0.750 to 1.000	**$5.49**
DXE-HDSBOLT3-5S	1/4"-20	3.500	0.750 to 1.000	**$5.09**
DXE-HDSBOLT3-25S	1/4"-20	3.250	0.750 to 1.000	**$4.79**
DXE-HDSBOLT2-75S	1/4"-20	2.750	0.750 to 1.000	**$4.39**
DXE-HDSBOLT2-5S	1/4"-20	2.500	0.750 to 1.000	**$4.09**

Bolt Set Dimensions in Inches

Saddle Clamp Reinforcement Plates

We sell these stainless steel reinforcement plates separately because Hams and professionals have found so many interesting uses for them. From panel repair and shimming to drill guides and chassis covers, we're amazed at the new applications you've discovered for our backing plates.

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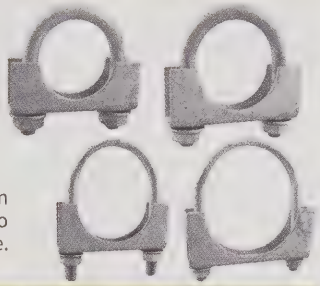
Of course, they're also perfect replacements for lost or damaged Super Duty and Heavy Duty Saddle Clamp Reinforcement Plates. Check the nearby clamps chart for the dimensions that match these reinforcement plates.

Part Number	Matching Saddle Clamp Part Number	For Saddle Clamp Size	Price
Super Duty Saddle Clamp Reinforcement Plates			
DXE-SDSBP-300	For Saddle Clamp DXE-SDS-300P	3.00"	**$19.99**
DXE-SDSBP-250	For Saddle Clamp DXE-SDS-250P	2.50"	**$18.99**
DXE-SDSBP-200	For Saddle Clamp DXE-SDS-200P	2.00"	**$17.99**
Heavy Duty Saddle Clamp Reinforcement Plates			
DXE-HDSBP-200A	For Saddle Clamp DXE-HDS-200AP	2.000"	**$5.49**
DXE-HDSBP-175A	For Saddle Clamp DXE-HDS-175AP	1.750"	**$4.99**
DXE-HDSBP-150A	For Saddle Clamp DXE-HDS-150AP	1.500"	**$4.99**
DXE-HDSBP-125A	For Saddle Clamp DXE-HDS-125AP	1.250"	**$4.99**
DXE-HDSBP-100A	For Saddle Clamp DXE-HDS-100AP	1.000"	**$4.99**
DXE-HDSBP-075A	For Saddle Clamp DXE-HDS-075AP	0.750"	**$4.49**

CYCLE 24



Galvanized Economy Saddle Clamps

Though designed for antenna building, these budget-friendly Cycle 24 clamps can be the perfect solution for any mounting, installation or bracketing project. The clamps are made to withstand decades of indoor and outdoor use. Each clamp includes nuts, U-bolt and saddle.

Part Number	For Tubing Size	Thread Pitch	Thread Length	Price
CYT-CL125SG	1.250"	5/16"-18	1.000"	**$3.99**
CYT-CL150SG	1.500"	5/16"-18	1.000"	**$4.99**
CYT-CL175SG	1.750"	5/16"-18	1.000"	**$5.99**
CYT-CL2000516SG	2.000"	5/16"-18	1.000"	**$5.99**
CYT-CL2125SG	2.125"	5/16"-18	1.500"	**$5.99**
CYT-CL2250SG	2.250"	3/8"-16	1.500"	**$7.99**
CYT-CL2500SG	2.500"	3/8"-16	1.500"	**$7.99**
CYT-CL3000SG	3.000"	3/8"-16	1.500"	**$8.99**
CYT-CL3500SG	3.500"	3/8"-16	1.500"	**$8.99**

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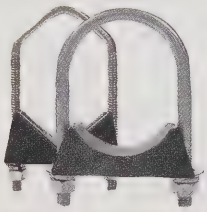
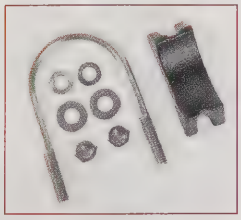


Saddle Clamps with Powdercoated Saddles

- Stainless steel flat washers, lock washers, nuts and bolts
- Black powdercoated saddle finish

U-Bolt Style

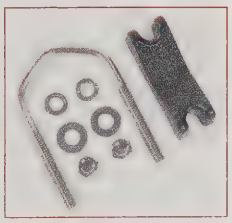
U-Bolt Part Number	Nominal Size	Thread Bolt Size	Price Each
DXE-PSAD-050A	0.50"	1/4"-20	**$14.99**
DXE-PSAD-075A	0.75"	1/4"-20	**$15.19**
DXE-PSAD-100A	1.00"	1/4"-20	**$15.39**
DXE-PSAD-125A	1.25"	1/4"-20	**$15.69**
DXE-PSAD-150A	1.50"	1/4"-20	**$15.99**
DXE-PSAD-175A	1.75"	1/4"-20	**$16.29**
DXE-PSAD-200A	2.00"	5/16"-18	**$16.59**
DXE-PSAD-250A	2.50"	5/16"-18	**$16.89**
DXE-PSAD-300A	3.00"	5/16"-18	**$18.99**



DXE-PSAD-200A

V-Bolt Style

V-Bolt Part Number	Nominal Size	Thread Bolt Size	Price Each
DXE-PCAVS-1P	0.50"-1.75"	1/4"-20	**$11.99**
DXE-PCAVS-2P	1.00"-2.00"	5/16"-18	**$13.99**



DXE-PCAVS-2P

DX ENGINEERING®

DX Engineering U-Bolt Saddle Clamps

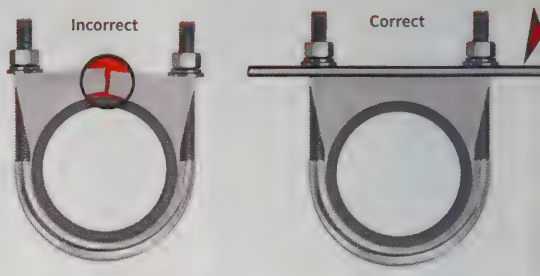
Unlike common hardware store clamps that are sized to fit pipe, our clamps are designed and sized to fit tubing.

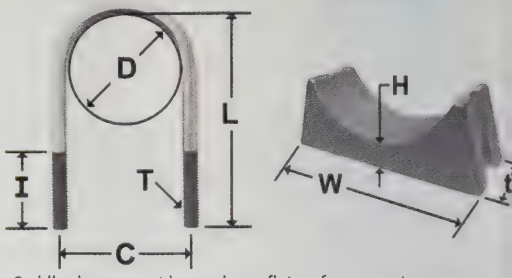
The U-Bolt Saddle Clamps come with high strength, 18-8 grade stainless steel U-bolts that are long enough to attach tubing or components to thick mounting plates. The U-bolts are available in 1/4 inch, 5/16 inch and 3/8 inch as listed. Note that the 2 inch, 2.5 inch and 3 inch clamps are available with either 5/16 inch or 3/8 inch U-bolts.

The U-Bolt Saddle Clamp saddles are cast from high strength 535 aluminum, which has superior anti-corrosion properties. Unlike stamped or machined types, the saddles' rippled surface grips tubing closely for a secure fit.

The U-Bolt Saddle Clamps are designed for use with mounting plates, which are available separately. The clamps are sold only as a set with aluminum saddle, stainless steel U-bolts, nuts, flat washers and lock washers.

The use of a lubricant and sealant, such as Jet Lube SS-30 (JTL-2555), is highly recommended to achieve proper torque and prevent galling. DX Engineering sells replacement U-bolts with hardware kits.





Saddle clamps must be used on a flat surface or customer supplied backing plate. Personal injury and property damage can occur without proper installation. Always use a lubricant such as Never-Seez® or Anti-Seize to prevent the stainless steel hardware from seizing.

Size	DXE Part Number	D	L	C	I	T	Hole Size	W	H	t	Price Each
0.50	DXE-SAD-050A	0.50	1.35	0.75	0.87	1/4"-20	0.266 "H"	0.90	0.188	0.63	**$6.49**
0.75	DXE-SAD-075A	0.75	1.81	1.00	0.87	1/4"-20	0.266 "H"	1.13	0.188	0.75	**$6.99**
1.00	DXE-SAD-100A	1.00	2.06	1.25	0.87	1/4"-20	0.266 "H"	1.50	0.250	1.00	**$7.99**
1.25	DXE-SAD-125A	1.25	2.37	1.50	0.87	1/4"-20	0.266 "H"	1.75	0.250	1.00	**$9.49**
1.50	DXE-SAD-150A	1.50	2.62	1.75	0.87	1/4"-20	0.266 "H"	2.00	0.250	1.00	**$9.99**
1.75	DXE-SAD-175A	1.75	3.00	2.00	1.00	1/4"-20	0.266 "H"	2.31	0.250	1.00	**$10.49**
2.00	DXE-SAD-200A	2.00	3.43	2.31	1.12	5/16"-18	0.332 "Q"	2.62	0.375	1.00	**$10.99**
2.00	DXE-SAD-200B	2.00	4.00	2.37	1.50	3/8"-16	0.397 "X"	2.62	0.375	1.00	**$12.49**
2.50	DXE-SAD-250A	2.50	4.18	2.81	1.25	5/16"-18	0.332 "Q"	3.13	0.375	1.13	**$12.99**
2.50	DXE-SAD-250B	2.50	4.75	2.87	1.75	3/8"-16	0.397 "X"	3.13	0.375	1.13	**$14.49**
3.00	DXE-SAD-300A	3.00	4.68	3.31	1.25	5/16"-18	0.332 "Q"	3.62	0.375	1.25	**$14.49**
3.00	DXE-SAD-300B	3.00	5.25	3.37	1.75	3/8"-16	0.397 "X"	3.62	0.375	1.25	**$15.99**
4.00	DXE-SAD-400A	4.05	5.56	4.43	1.50	3/8"-18	0.397 "X"	4.80	0.438	1.50	**$34.99**
4.50	DXE-SAD-450A	4.55	6.06	4.93	1.50	3/8"-16	0.397 "X"	5.30	0.438	1.50	**$39.99**

Suggested Hole Size: 0.266" is letter "H" drill bit, 0.332" is letter "Q" drill bit, and 0.397" is letter "X" drill bit. All U-Bolts are formed from premium 18-8 stainless steel. All Saddles are cast 535 aluminum. All Saddle Clamp Sets are supplied with 18-8 stainless steel nuts and lock washers. Dimensions shown are in inches. Note: These are NOT Automotive Muffler Clamps.

DX Engineering Clamps Have Hundreds of Uses!

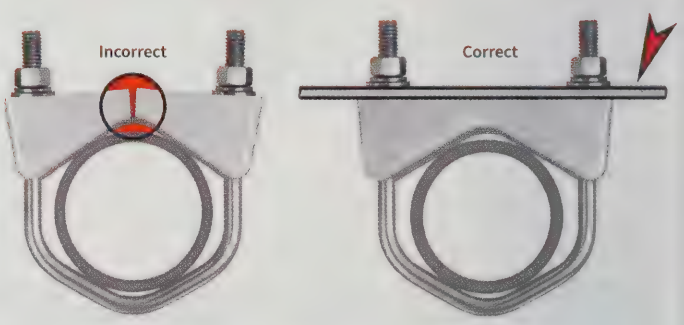
DX Engineering U-Bolt, V-Bolt, and Band Clamps are very versatile. For example, we've seen the ECLS Studded Band Clamps used to fasten merchandise display signs to upright tubing. Have you used DX Engineering clamps for other, non-antenna projects?

We'd love to know about it—drop us a note and send pictures if you have them!

DX Engineering V-Bolt Saddle Clamps

Our V-Bolt Saddle Clamps are sized to fit ranges of tubing. The V-bolts are long enough to attach tubing or components to thick plates and are highly corrosion-resistant.

The V-Bolt Saddle Clamps are intended for use with a backing plate or mounting plate to retain the bolt spacing. The saddles' rippled surface will clamp tubing securely to a flat surface.



Features

- 18-8 stainless steel V-bolts with nuts, flat washers and lock washers
- Cast aluminum saddles with rippled surface
- Available in a number of size ranges

Tubing Recommendations

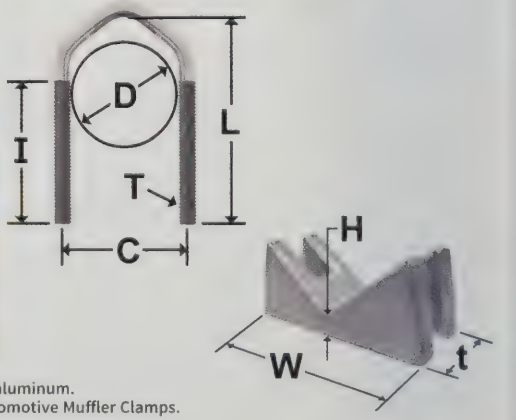
DXE-CAVS-1P: fits 1/2 inch to 1 3/4 inch OD tubing, 1/4"-20 bolt

DXE-CAVS-11P: fits 1/2 inch to 1 3/4 inch OD tubing, 5/16"-18 bolt

DXE-CAVS-2P: fits 1 inch to 2 inch OD tubing, 5/16"-18 bolt

DXE-CAVS-3P: fits 2 inch to 3 inch OD tubing, 3/8"-16 bolt

The clamps are sold only as a set with aluminum saddle, stainless steel V-bolts, nuts, flat washers and lock washers. The use of a lubricant and sealant, such as Jet Lube SS-30 (JTL-2555), is highly recommended to achieve proper torque and prevent galling. For high torque load applications where the tubing is subjected to twisting motion, we recommend using our U-Bolt Saddle Clamps.



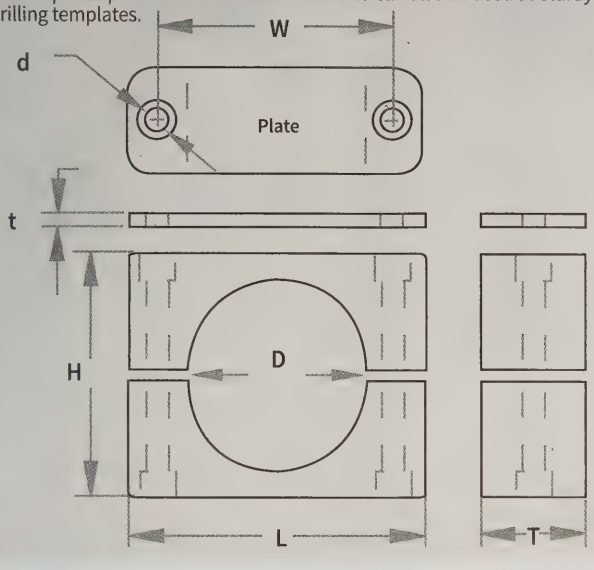
Nominal Size	DXE Part Number	D	L	C	I	T	Hole Size	W	H	t	Price Each
0.50 to 1.75	DXE-CAVS-1P	1.75	3.438	1.968	2.313	1/4"-20	0.266 "H"	2.313	0.250	1	**$11.99**
0.50 to 1.75	DXE-CAVS-11P	1.75	3.438	2.063	2.313	5/16"-18	0.332 "Q"	2.313	0.250	1	**$12.99**
1 to 2	DXE-CAVS-2P	2.00	3.438	2.313	2.000	5/16"-18	0.332 "Q"	2.835	0.375	1	**$13.99**
2 to 3	DXE-CAVS-3P	3.13	4.610	3.500	1.750	3/8"-16	0.397 "X"	4.250	0.500	2	**$18.99**

All dimensions are in inches. Note: DXE-CAVS-1/11/2P saddle material is cast 535 aluminum, DXE-CAVS-3P saddle material is cast 319 aluminum. Suggested Hole Size: 0.266" is letter "H" drill bit, 0.332" is letter "Q" drill bit, and 0.397" is letter "X" drill bit. Note: These are NOT Automotive Muffler Clamps.

DX Engineering Resin Support Block Clamps

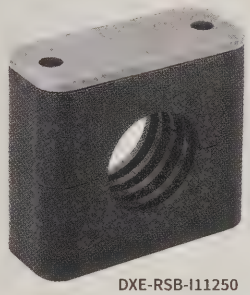
Our Resin Support Block Clamps are ideal for securing mounting brackets or plates to tubing, while also providing electrical insulation. That makes the clamps a good choice for electronic components. The clamps are sturdy and provide a strong, well-insulated mounting that is easy to construct. They are available in many sizes for most any project you might have.

The Resin Support Block is shown with an optional stainless steel reinforcement plate. These plates provide additional stiffness and can also be used as sturdy hole-drilling templates.



Support Block Dimensions in Inches

Block Part Number	Tube OD	d	H	T	L	W	Reinforcement Plate Required	Price Each
DXE-RSB-I02500	1/4	1/4	1.050	1.185	1.350	0.784	DXE-RSB-DP-1	$2.99
DXE-RSB-I03125	5/16	5/16	1.050	1.185	1.350	0.784	DXE-RSB-DP-1	$3.49
DXE-RSB-I03750	3/8	3/8	1.050	1.185	1.350	0.784	DXE-RSB-DP-1	$3.49
DXE-RSB-I05000	1/2	1/2	1.290	1.192	1.595	1.024	DXE-RSB-DP-2	$3.49
DXE-RSB-I06250	5/8	5/8	1.290	1.192	1.595	1.024	DXE-RSB-DP-2	$3.49
DXE-RSB-I03400	3/4	3/4	1.394	1.186	1.910	1.301	DXE-RSB-DP-3	$3.99
DXE-RSB-I10000	1.000	1.000	1.394	1.186	1.910	1.301	DXE-RSB-DP-3	$4.49
DXE-RSB-I11250	1.125	1.125	1.665	1.189	2.258	1.575	DXE-RSB-DP-4	$5.99
DXE-RSB-I12500	1.250	1.250	2.292	1.182	2.760	2.050	DXE-RSB-DP-5	$5.99
DXE-RSB-I11500	1.500	1.500	2.292	1.182	2.760	2.050	DXE-RSB-DP-5	$6.49
DXE-RSB-I13400	1.750	1.750	2.674	1.184	3.394	2.600	DXE-RSB-DP-6	$10.99
DXE-RSB-I20000	2.000	2.000	2.678	1.184	3.394	2.600	DXE-RSB-DP-6	$11.99
DXE-RSB-I22500	2.250	2.250	2.904	1.184	3.394	2.600	DXE-RSB-DP-6	$11.99


DXE-RSB-I11250

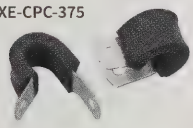
Reinforcement Plates Dimensions in Inches

Part Number	d	t	W	Each
DXE-RSB-DP-1	0.275	0.119	0.784	$5.99
DXE-RSB-DP-2	0.275	0.119	1.024	$5.99
DXE-RSB-DP-3	0.275	0.119	1.301	$5.99
DXE-RSB-DP-4	0.275	0.119	1.575	$6.49
DXE-RSB-DP-5	0.275	0.119	2.050	$6.89
DXE-RSB-DP-6	0.275	0.119	2.600	$7.49

DX ENGINEERING®

Cushioned P-Clamps

DXE-CPC-375



DX Engineering P-Clamps are ideal for providing strain relief of coaxial cable connections. The rubber insert grips the cable jacket securely without nicking or cutting the jacket, preventing water entry.

DXE-CPC-250 For RG-8X, RG-6, RG-59 Cable, Pack of 10 ..... $15.99

DXE-CPC-375 For RG-213, RG-8, RG-11 Cable, Pack of 10 ..... $15.99

Stainless Steel Element Clamps

Typical elements are built using 0.058 inch wall tubing, which allows successive sizes to slide together with good contact. Use these clamps to hold the telescoping tubing in place. The stainless steel construction makes them ideal for corrosive environments.

Part Number	For Tubing Size (OD)	Per Pack	Price
DXE-ECL-0500-10P	0.375"-0.500"	10	$18.99
DXE-ECL-0625-10P	0.625"	10	$18.99
DXE-ECL-0750-10P	0.750"	10	$18.99
DXE-ECL-0875-10P	0.875"	10	$18.99
DXE-ECL-1000-10P	1.000"	10	$18.99
DXE-ECL-1250-10P	1.125"-1.250"	10	$18.99
DXE-ECL-1500-10P	1.375"-1.500"	10	$18.99
DXE-ECL-1750-10P	1.625"-1.750"	10	$18.99
DXE-ECL-2000-10P	1.875"-2.000"	10	$19.99
DXE-ECL-2250-5P	2.125"-2.250"	5	$9.99
DXE-ECL-2500-5P	2.375"-2.500"	5	$9.99
DXE-ECL-2750-5P	2.625"-2.750"	5	$9.99
DXE-ECL-3000-5P	2.875"-3.000"	5	$9.99
DXE-ECL-3250-5P	3.25" (max.)	5	$9.99
Multi-Packs with Pairs of Assorted Sizes			
DXE-ECL-MP1	0.500"-1.500"	14	$12.99
DXE-ECL-MP2	1.000"-2.250"	12	$14.99
DXE-ECL-MP3	2.125"-3.250"	12	$13.99

Stainless Steel V-Clamps

DXE-SSVC-1PG

Ideal for mounting accessories to steel pipe. The V-saddle has serrations that bite into the surface, providing a strong, secure hold. The bolts supplied are long enough to attach tubing to thick plates and have anti-corrosive properties for long life. Some clamps are available with a tab and 1/4" hardware for adding grounding wires. Not recommended for aluminum tubing or pipe.

DXE-SSVC-150PG

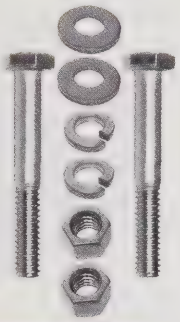
V-Clamp Part Number	Pipe Size	Ground Lug	Price Each
DXE-SSVC-1P	1/2" to 3/4"	No	$7.49
DXE-SSVC-1PG	1/2" to 3/4"	Yes	$8.49
DXE-SSVC-150P	1" to 1.5"	No	$10.49
DXE-SSVC-150PG	1" to 1.5"	Yes	$11.49
DXE-SSVC-2P	1" to 2"	No	$12.49
DXE-SSVC-3P	2.375" to 3"	No	$15.49

ECLS-Series Band Clamps with Stud

Made from marine grade stainless steel with a 10-24 stud welded to the band. Ideal for mechanical fastening to round or odd-shaped members. Can be used for electrical connections (including grounding) or for mechanical assembly of components, attachment of signs, etc. Threaded hardware included.

Part Number	Size	Price (2)
DXE-ECLS-050	0.500" OD tube	$12.99
DXE-ECLS-062	0.625" OD tube	$12.99
DXE-ECLS-075	0.750" OD tube	$12.99
DXE-ECLS-087	0.875" OD tube	$12.99
DXE-ECLS-100	1.000" OD tube	$12.99
DXE-ECLS-125	1.250" OD tube	$12.99
DXE-ECLS-150	1.500" OD tube	$12.99
DXE-ECLS-175	1.750" OD tube	$12.99
DXE-ECLS-200	2.000" OD tube	$12.99
DXE-ECLS-225	2.250" OD tube	$12.99
DXE-ECLS-250	2.500" OD tube	$12.99
DXE-ECLS-275	2.750" OD tube	$12.99
DXE-ECLS-300	3.000" OD tube	$13.99
DXE-ECLS-325	3.250" OD tube	$13.99

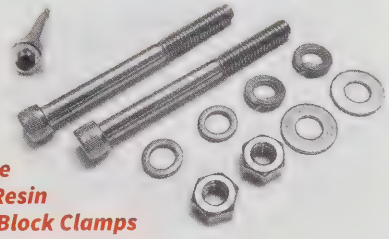
Hex Bolt Hardware Sets



Don't compromise your installation integrity with inferior hardware. Designed and tested for Amateur Radio applications, these nut and bolt sets have been precisely made for DX Engineering's own Super Duty Saddle Clamps, Heavy Duty Saddle Clamps and Resin Support Blocks.

Each "RSBBOLT" set includes a matched pair of nuts and bolts, plus 2 flat washers and 2 split washers. The bolt thread is 1/4"-20 and the bolt hex head is SAE 7/16".

Part Number	Bolt Length	Price
DXE-RSBBOLT1-50	1.5"	$4.19
DXE-RSBBOLT1-75	1.75"	$4.25
DXE-RSBBOLT2-00	2.00"	$4.29
DXE-RSBBOLT2-25	2.25"	$4.35
DXE-RSBBOLT2-50	2.50"	$4.39
DXE-RSBBOLT2-75	2.75"	$4.45
DXE-RSBBOLT3-25	3.25"	$4.49
DXE-RSBBOLT3-50	3.50"	$4.55



Hardware Sets for Resin Support Block Clamps

DX Engineering makes these hardware kits precisely for the Resin Support Block Clamps. The sets include a matched pair of stainless steel nuts and bolts, a pair of split washers, and two pair of small/large flat washers. Select your kit based on bolt length below.

DXE-RSBSBOLT2-50 Resin Support Block Hardware, 2.50" Bolts $4.99

DXE-RSBSBOLT2-75 Resin Support Block Hardware, 2.75" Bolts $4.99

DXE-RSBSBOLT3-00 Resin Support Block Hardware, 3.00" Bolts $4.99

Orders by 10 pm ET ship the same day. See pg. 76 for details.

DX ENGINEERING

HF Antenna Mounting Heavy Duty Pivot Bases

Shown with optional parts.

You don't have to call a buddy—these bases let you raise your antenna without asking for help. They're perfect for both monoband and multi-band HF vertical antennas. In fact, these are the same bases supplied with many of DX Engineering's vertical antenna kits.

Made with stainless steel components and extra-strong Extren® insulated channels, DX Engineering Pivot Bases are an excellent HF antenna mounting solution. Visit DXEngineering.com to see exact installation parameters.

DXE-VA-PIVOT-3 Pivot Base, for 3" OD Base Tubing **$457.99**

DXE-VA-PIVOT-4 Pivot Base, for 4" OD Base Tubing **$944.99**

DXE-FTK46A-HD

DX ENGINEERING

46 Foot Telescoping Fiberglass Tubing Mast Kit

- Custom-made tubing for DX Engineering
- Smoothly telescoping
- Neutral light gray color
- Includes DX Engineering Stainless Steel Element Clamps to assemble slit lengths

DXE-FTK46A Telescoping Tubing Kit ... **$198.99**

DXE-FTK46A-HD HD Telescoping Tubing Kit **$289.99**

Telescoping Tubing Compression Clamp Kits

If you're putting together a mast with telescoping fiberglass tubing, then these clamp kits are invaluable assets. These are custom-designed clamshell-type clamps that securely hold each tubing section with two stainless steel band clamps. You get 6 of the clamshell clamps and 12 of DX Engineering's stainless steel band clamps.

DXE-TCC-KIT1 Compression Clamp Kit, for 2" to 0.5" Tubing **$43.99**

DXE-TCC-KIT2 Compression Clamp Kit, for 2.75" to 2" Tubing **$29.99**

DXE-ATK65A

DX ENGINEERING

Telescoping Aluminum Antenna Kit

DXE-VA-BASE

- Eleven telescoping sections from 2" to 7/8" OD
- Stainless steel element clamps

DXE-ATK65A Telescoping Aluminum Antenna Kit **$209.99**

DXE-VE-BASE Vertical Antenna Fixed Base Assembly, Insulated **$99.99**

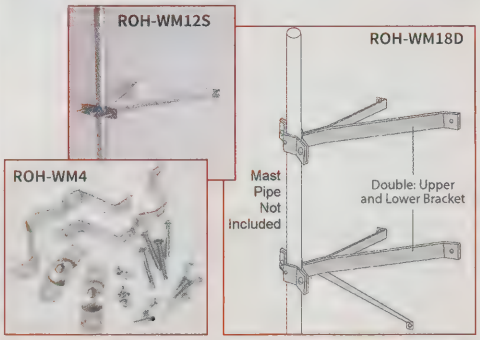
DXE-VA-BASE Vertical Antenna Tilt Base Assembly, Insulated **$159.99**

Guy Rings

You can use DX Engineering's newly engineered Guy Rings to secure your rope guys and stabilize your DX Engineering, Hustler or other aluminum vertical antenna. They're also great for our Telescoping Fiberglass and Aluminum Tubing Kits.

These guy rings are super strong, virtually impervious to the elements and fit 0.75", 1.0", 1.25", 1.50" and 2.0" OD tubing.
For all the specs, please visit DXEngineering.com.

DXE-GR-5P Guy Rings, Set of 5 ..... **$8.99**



ROHN Products LLC

Wall Mounts

Take advantage of rigid walls; use a Rohn Wall Mount to install your antenna. These mounts include all the clamps and hardware you need, just add your mast and you're ready to go. They handle .875"-2.75" OD tubing and hold the mast away from your wall. They're hot-dip galvanized to resist corrosion.

Part Number	Wall Clearance	Brackets Included	Price
ROH-WM4	3"	2	$29.99
ROH-WM12S	12"	1	$31.99
ROH-WM18S	18"	1	$39.99
ROH-WM18D	18"	2	$54.99
ROH-WM24S	24"	1	$39.99
ROH-WM24D	24"	2	$52.99

Ridgid® Tubing Cutter

Makes clean, smooth edges in tubing sections that require minimal deburring. Can cut aluminum, copper and brass tubing as well as thin-wall conduit.

- Adjustable from 1/4 inch to 1 1/8 inch OD
- Telescoping feed screw design
- Enclosed feed screw eliminates clogging
- Grooved rollers for close-to-flare cuts
- Fold-away reamer
- X-CEL knob and pin for quicker cutting
- Spare cutter wheel included

DXE-31622 Ridgid Tubing Cutter **$41.99**

DXE-VC-0612 Shown Installed

DXE-VPC-0677 Shown Installed

DX ENGINEERING

Vinyl End Caps

Keep moisture out of open tubes to prevent rust or, worse yet, frozen pipes. These UV-rated black vinyl end caps are also great for sealing your booms or Yagi elements.

Part Number	Length	Tubing Size (OD)	Quantity	Price
DXE-VC-0125	1.000"	0.125"	20	$5.59
DXE-VC-0250	0.500"	0.250"	20	$5.59
DXE-VC-0375	0.500"	0.375"	20	$5.59
DXE-VC-0500	0.500"	0.500"	20	$5.79
DXE-VC-0625	1.000"	0.625"	20	$6.79
DXE-VC-0750	1.000"	0.750"	20	$5.59
DXE-VC-0875	1.000"	0.875"	10	$5.79
DXE-VC-1000	1.000"	1.000"	10	$5.79
DXE-VC-1125	1.000"	1.125"	10	$7.29
DXE-VC-1250	1.000"	1.250"	10	$7.29
DXE-VC-1375	1.000"	1.375"	8	$8.99
DXE-VC-1500	1.000"	1.500"	6	$5.29
DXE-VC-1625	1.000"	1.625"	4	$5.79
DXE-VC-1750	1.000"	1.750"	4	$5.79
DXE-VC-1875	1.000"	1.875"	4	$6.79
DXE-VC-2000	1.000"	2.000"	2	$4.59
DXE-VC-2250	1.000"	2.250"	2	$4.99
DXE-VC-3000	1.000"	3.000"	2	$4.99
DXE-VPC-0677 caps are ideal for PL-259 connectors and the DXE-VC-0612 for SO-239 connectors.				
DXE-VPC-0677	1.437"	0.677"	20	$6.99
DXE-VC-0612	0.500"	0.612"	20	$5.79

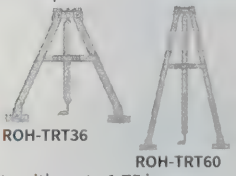
Aluminum Tripod

COMET

The perfect companion to your Telescopic Aluminum Mast, this portable tripod is an easy way to get on the air for Field Day or EMCOMM. It can handle a guyed mast up to 55 inches long while supporting 22 pounds of antenna load.

CMA-YS-45 Aluminum Tripod **$129.99**

ROHN Products LLC



ROH-TRT36 ROH-TRT60

Tripod Roof Towers

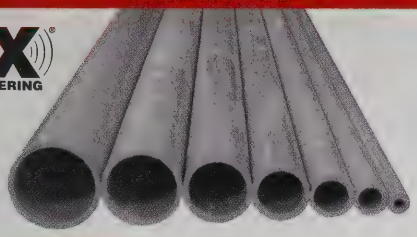
These towers feature a universal clamp that is capable of mounting masts with up to 1.75 in. diameters. The bolt-on swivel feet adjust to the pitch of almost any roof. Installation is simple and fast with lag screws (not included) in the base feet that securely anchor the towers for long, trouble-free service. Rohn tripod roof towers feature a lower mast support bracket, hot-dip galvanized construction for corrosion protection and prevailing torque locknuts on the bolt-on feet.

ROH-TRT36 Tripod Roof Tower, 3' **$65.99**

ROH-TRT60 Tripod Roof Tower, 5' **$78.99**

Adjustable House Brackets. Perfect for bracing your lightly guyed or self-supporting Rohn 25G series tower, they compensate for eaves and overhangs. A great solution if the rules require all self-supported or guyed towers to be bracketed.

Part Number	Wall Clearance	Width	Price
ROH-HB25BG	Adjustable 0-24"	25"	$142.99
ROH-HB25AG	Adjustable 0-15"	25"	$145.99
ROH-HB25CG	Adjustable 0-36"	30"	$167.99



Fiberglass Tubing

DX Engineering 1/8" wall extruded fiberglass tubing is available in telescoping lengths. The strong 90 inch lengths are ideal for building your own antenna support, like quad spreaders and insulated UHF stacking frames—even push-up masts.

The optional slit ends are ideal for clamping without drilling (drilling weakens the tubing). Don't forget DX Engineering Stainless Steel Element Clamps for a final, long-lasting assembly or easy-to-assemble portable installation.

Telescoping Fiberglass Tubing, No Slit

Part Number	OD	Wall	Length	Each
DXE-FT0500-90	0.500"	0.125"	90"	**$6.49**
DXE-FT0750-90	0.750"	0.125"	90"	**$8.99**
DXE-FT1000-90	1.000"	0.125"	90"	**$9.99**
DXE-FT1250-90	1.250"	0.125"	90"	**$11.99**
DXE-FT1500-90	1.500"	0.125"	90"	**$18.99**
DXE-FT1750-90	1.750"	0.125"	90"	**$20.99**
DXE-FT2000-90	2.000"	0.125"	90"	**$25.99**
DXE-FT2250-90	2.250"	0.125"	90"	**$34.99**
DXE-FT2500-90	2.500"	0.125"	90"	**$38.99**
DXE-FT2750-90	2.750"	0.125"	90"	**$44.99**

Telescoping Fiberglass Tubing with One End Slit

Part Number	OD	Wall	Length	Each
DXE-FT0750-90-SL	0.750"	0.125"	90"	**$13.99**
DXE-FT1000-90-SL	1.000"	0.125"	90"	**$14.99**
DXE-FT1250-90-SL	1.250"	0.125"	90"	**$16.99**
DXE-FT1500-90-SL	1.500"	0.125"	90"	**$23.99**
DXE-FT1750-90-SL	1.750"	0.125"	90"	**$25.99**
DXE-FT2000-90-SL	2.000"	0.125"	90"	**$30.99**
DXE-FT2250-90-SL	2.250"	0.125"	90"	**$39.99**
DXE-FT2500-90-SL	2.500"	0.125"	90"	**$44.99**
DXE-FT2750-90-SL	2.750"	0.125"	90"	**$49.99**

DXE-UT-KIT-DBR

DXE-UT-2125

DXE-UT-3500

Pipe and Tube Deburring Tools

If you're building a tower, mast or beam antenna, these tools will be worth their weight in gold. They make the tedious deburring process much easier. These tools smooth the rough edges on the inside and outside of your telescoping aluminum, fiberglass, copper, steel or plastic pipe and tubing, assuring a smooth surface when joined with another section.

You can purchase each tool separately or together in a kit that includes both deburring tools, a small hand deburring tool, half-round file and a carrying case.

DXE-UT-KIT-DBR	Deburring Tool Kit	**$79.99**
DXE-UT-2125	Deburring Tool, for .375" to 2.125" OD Tubing	**$24.99**
DXE-UT-3500	Deburring Tool, for 1.875" to 3.5" OD Tubing	**$29.99**

Aluminum Tubing

Custom-made for DX Engineering, this high strength Type 6063-T832 seamless drawn aluminum tubing is available in 3 and 6 foot lengths. Type 6063 alloy provides good resistance to general corrosion, including stress corrosion cracking and has excellent surface appearance.

Use the 3 foot lengths for fast taper, low-wind resistance applications. The 6 foot slow taper lengths afford the greatest bandwidth. Most sizes are slit on one end for use with DX Engineering Stainless Steel Element Clamps. If unslit ends are required for your application, merely insert the slit end into the next larger size in the stack and use your own attachment method.

The 0.058 inch wall tubing is available in 1/8 inch increments from 3/8 inch to 2 1/8 inch OD It is ideal for a free, yet solid telescoping fit from size to size for vertical or Yagi elements. Some larger sizes are available in 0.120 inch wall, 6061-T8 aluminum, which assures maximum strength at very long assembly lengths.

- High strength Type 6063 seamless aluminum tubing—drawn, not extruded
- Ideal for telescoping antenna elements, support masts and booms
- Available in unslit and pre-slit lengths
- Use DX Engineering Stainless Steel Element Clamps to assemble lengths of slit tubing

Stainless steel element clamps for exact tubing sizes are available at DXEngineering.com.

Aluminum Tubing, No Slit

Part Number	OD	Wall	Length	Each
DXE-AT1240	0.375"	0.058"	3 Foot	**$2.25**
DXE-AT1494	0.500"	0.058"	3 Foot	**$2.40**
DXE-AT1495	0.625"	0.058"	3 Foot	**$2.70**
DXE-AT1496	0.750"	0.058"	3 Foot	**$3.00**
DXE-AT1497	0.875"	0.058"	3 Foot	**$3.10**
DXE-AT1498	1.000"	0.058"	3 Foot	**$3.25**
DXE-AT1499	1.125"	0.058"	3 Foot	**$3.60**
DXE-AT1500	1.250"	0.058"	3 Foot	**$4.15**
DXE-AT1501	1.375"	0.058"	3 Foot	**$4.45**
DXE-AT1502	1.500"	0.058"	3 Foot	**$4.85**
DXE-AT1503	1.625"	0.058"	3 Foot	**$5.25**
DXE-AT1504	1.750"	0.058"	3 Foot	**$5.70**
DXE-AT1505	1.875"	0.058"	3 Foot	**$6.15**
DXE-AT1506	2.000"	0.058"	3 Foot	**$6.60**
DXE-AT1255	2.000"	0.120"	3 Foot	**$17.85**
DXE-AT1507	2.125"	0.058"	3 Foot	**$7.05**
DXE-AT1189	0.375"	0.058"	6 Foot	**$4.20**
DXE-AT1480	0.500"	0.058"	6 Foot	**$4.50**
DXE-AT1481	0.625"	0.058"	6 Foot	**$5.10**
DXE-AT1482	0.750"	0.058"	6 Foot	**$5.70**
DXE-AT1483	0.875"	0.058"	6 Foot	**$6.00**
DXE-AT1484	1.000"	0.058"	6 Foot	**$6.30**
DXE-AT1485	1.125"	0.058"	6 Foot	**$7.00**
DXE-AT1486	1.250"	0.058"	6 Foot	**$8.00**
DXE-AT1487	1.375"	0.058"	6 Foot	**$8.70**
DXE-AT1488	1.500"	0.058"	6 Foot	**$9.50**
DXE-AT1489	1.625"	0.058"	6 Foot	**$10.30**
DXE-AT1490	1.750"	0.058"	6 Foot	**$11.10**
DXE-AT1491	1.875"	0.058"	6 Foot	**$12.00**
DXE-AT1492	2.000"	0.058"	6 Foot	**$12.90**
DXE-AT1493	2.125"	0.058"	6 Foot	**$13.80**

Aluminum Tubing with One End Slit

Part Number	OD	Wall	Length	Each
DXE-AT1241	0.500"	0.058"	3 Foot	**$4.40**
DXE-AT1242	0.625"	0.058"	3 Foot	**$4.70**
DXE-AT1243	0.750"	0.058"	3 Foot	**$5.00**
DXE-AT1244	0.875"	0.058"	3 Foot	**$5.10**
DXE-AT1245	1.000"	0.058"	3 Foot	**$5.25**
DXE-AT1246	1.125"	0.058"	3 Foot	**$5.60**
DXE-AT1247	1.250"	0.058"	3 Foot	**$6.15**
DXE-AT1248	1.375"	0.058"	3 Foot	**$6.45**
DXE-AT1249	1.500"	0.058"	3 Foot	**$6.85**
DXE-AT1250	1.625"	0.058"	3 Foot	**$7.25**
DXE-AT1251	1.750"	0.058"	3 Foot	**$7.70**
DXE-AT1252	1.875"	0.058"	3 Foot	**$8.15**
DXE-AT1253	2.000"	0.058"	3 Foot	**$8.60**
DXE-AT1254	2.125"	0.058"	3 Foot	**$9.05**
DXE-AT1205	0.500"	0.058"	6 Foot	**$6.50**
DXE-AT1206	0.625"	0.058"	6 Foot	**$7.10**
DXE-AT1207	0.750"	0.058"	6 Foot	**$7.70**
DXE-AT1208	0.875"	0.058"	6 Foot	**$8.00**
DXE-AT1209	1.000"	0.058"	6 Foot	**$8.30**
DXE-AT1210	1.125"	0.058"	6 Foot	**$9.00**
DXE-AT1211	1.250"	0.058"	6 Foot	**$10.00**
DXE-AT1212	1.375"	0.058"	6 Foot	**$10.70**
DXE-AT1213	1.500"	0.058"	6 Foot	**$11.50**
DXE-AT1214	1.625"	0.058"	6 Foot	**$12.30**
DXE-AT1215	1.750"	0.058"	6 Foot	**$13.10**
DXE-AT1216	1.875"	0.058"	6 Foot	**$14.00**
DXE-AT1217	2.000"	0.058"	6 Foot	**$14.90**
DXE-AT1218	2.125"	0.058"	6 Foot	**$15.80**

6061-T8 Aluminum Tubing, Heavy Wall, No Slit
Ideal for Booms and HD Element Designs.

Part Number	OD	Wall	Length	Each
DXE-AT1311	1.500"	0.120"	6 Foot	**$25.85**
DXE-AT1312	1.750"	0.120"	6 Foot	**$30.20**
DXE-AT1313	2.000"	0.120"	6 Foot	**$35.00**
DXE-AT1314	2.250"	0.120"	6 Foot	**$39.45**
DXE-AT1315	2.500"	0.120"	6 Foot	**$44.50**
DXE-AT1316	2.750"	0.120"	6 Foot	**$48.95**
DXE-AT1317	3.000"	0.120"	6 Foot	**$53.40**

12 ft. Bundles Available.

SS-30™ Pure Copper Anti-Seize Lubricant

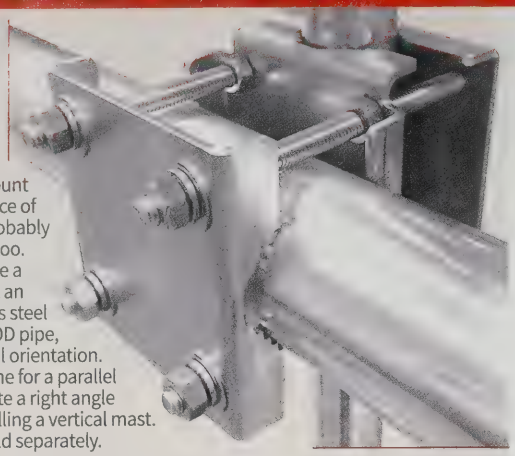
Use Jet-Lube on your taps, lugs, aluminum tubing joints, copper grounding straps, clamps, hardware and anywhere you need excellent conductivity.

JTL-12555	Jet-Lube, 0.25 Lb. Brush-Top Can	**$14.99**
JTL-12502	Jet-Lube, 0.50 Lb. Brush-Top Can	**$27.99**

Adjustable Length Deburring Tool

DXE-22600	Deburring Tool	**$13.99**
DXE-22110	Replacement Blades for Aluminum/Steel, Pack of 10	**$12.99**

Call us for easy special orders!



Genius Clamps

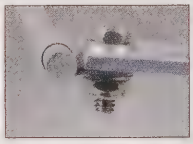
If you've ever struggled to mount a horizontal cross bar to a piece of vertical tubing, then you'd probably call these "Genius!" Clamps, too. They're the ideal way to create a tower standoff to side-mount an extra antenna. These stainless steel clamps are sized for 1" to 2" OD pipe, in both horizontal and vertical orientation. Two versions are available, one for a parallel standoff, and another to create a right angle mount that's perfect for installing a vertical mast. Genius Clamp hardware is sold separately.

DXE-SSGC-2P	Genius Clamps, Right Angle, Pair	$59.99
DXE-SSGC-2VP	Genius Clamps, Parallel, Pair	$64.99

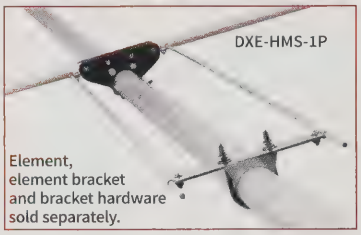
Stainless Steel Genius Clamp hardware

DXE-SSGCBOLT-6-5	6.5" Bolt Length, 5/16"-18 Thread, Set of 8	$18.99
DXE-SSGCBOLT-6	6" Bolt Length, 5/16"-18 Thread, Set of 8	$16.49
DXE-SSGCBOLT-5-5	5.5" Bolt Length, 5/16"-18 Thread, Set of 8	$15.99
DXE-SSGCBOLT-4-5	4.5" Bolt Length, 5/16"-18 Thread, Set of 8	$13.49
DXE-SSGCBOLT-5	5" Bolt Length, 5/16"-18 Thread, Set of 8	$14.99
DXE-SSGCBOLT-4	4" Bolt Length, 5/16"-18 Thread, Set of 8	$13.49

Hairpin-Style Driven Element Matching Kits



Most Yagi antennas have a feedpoint impedance of about 25 Ω. Obviously, this will not allow a connection to a 50 Ω feedline without a serious mismatch.
There are various ways to match the driven element to the feedline successfully. Gamma, T-Match and the Hairpin (aka Beta Match) are favorites.



The Gamma match is an unbalanced system that typically distorts the antenna pattern. The T-Match is basically two Gamma match systems on either side of the boom, which corrects the imbalance but is a mechanical nightmare and difficult to tune correctly.

The DX Engineering Hairpin is balanced and easy to tune. It has the correct electrical and mechanical design to allow it to be easily installed and tuned in 10 minutes, and has enough capacity for almost any Yagi design. Complete your installation with elements, element brackets and bracket hardware, available separately.

For use with BEB-2 Insulated Boom-to-Element Brackets

DXE-HMS-1P	2" Boom	$54.99

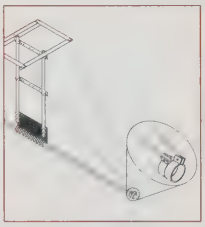
For use with BEB-3 Insulated Boom-to-Element Brackets and an SEI Split Element Insert

DXE-HMS-2P	1" to 1.75" Boom	$52.99

For use with BEB-1 Insulated Boom-to-Element Brackets

DXE-HMS-4P	3" Boom	$56.99

Boom Support Parts



DXE-ATBB-2

As antennas become larger, booms become longer, or the wind speed becomes higher, our 3 inch Boom Support Systems will keep the boom straight. Your antenna will look better, perform better and survive storms in better shape. Many of the individual pieces in these systems are available separately so you can design and build your own support systems.

2 Inch Boom Support Components

DXE-ATBB-2	2" Boom Bracket	$10.99

3 Inch Dual Boom Support System and Components

DXE-ATBB-3	3" Boom Bracket	$12.99

DXE-TRBK-14

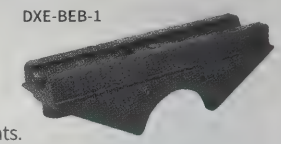
Turnbuckles

DXE-TRBK-14	Turnbuckle, 5.25" Retracted, 7.375" Extended	$6.99
DXE-TRBK-15	Turnbuckle, 6.5" Retracted, 9.125" Extended	$8.99

Insulated Boom-to-Element Brackets

DX Engineering offers insulated boom-to-element brackets to fit 1.75 inch, 2 inch and 3 inch OD booms. The non-metallic brackets electrically insulate the elements from the boom, which virtually nullifies the shortening effect that the boom and the normal metallic boom-to-element plates have on element length. This means the element lengths calculated through antenna design programs like YO, EZNEC and others will correspond more closely to the actual lengths needed. In most cases, the cost of the boom-to-element brackets is less than using a metallic plate and the necessary saddle clamps.

DXE-BEB-1



DXE-BEB-1 with Gorilla Grip® Boom Clamps

The DXE-BEB-1 replaces KLM or equivalent boom-to-element brackets. The bracket is also handy for any application where you need to insulate antenna elements.
This patented DX Engineering bracket is made from a much stronger material and features a pair of weather-resistant Gorilla Grip stainless steel clamps. It is five times stronger than the original KLM bracket and lets you use up to 1.25 inch OD element tubing. Gorilla Grip® stainless steel boom clamps ensure your antenna elements won't twist or deform in stiff wind. Use the DXE-ELA-1-2 Element Adapters to use a 1 inch diameter element with the DXE-BEB-1.

DX Engineering offers two hardware kits for the BEB-1. The standard kit is a direct KLM hardware replacement with #10 element fasteners. It includes a pair of Gorilla Grip® stainless steel boom clamps, stainless steel bolts, nuts and washers to attach clamps to the DXE-BEB-1, and stainless steel bolts, nuts and washers to attach elements or adapters to the element brackets. The vibration-resistant nuts have nylon inserts. The HWK-2 heavy-duty kit uses 1/4 inch bolts and hardware, so it is considered an upgrade for KLM brackets.

DXE-BEB-1	Insulated Boom-to-Element Bracket, 3" Boom	$49.99
DXE-BEB-1HWK	KLM Direct Replacement Hardware Kit	$26.99
DXE-BEB-1HWK-2	Hardware Kit with 1/4" Bolts	$31.99
DXE-ELA-1-2	Element Adapters, 1.25" to 1", for DXE-BEB-1	$11.99

These brackets are made for 3 inch OD booms only. For 2 inch booms, please use DXE-BEB-2.

DXE-BEB-2 with Gorilla Grip® Boom Clamp

The DXE-BEB-2 is made from an extremely strong, UV-resistant polymer. When bolted to your 2 inch boom using our hardware kit and the included Gorilla Grip boom clamp, it will easily support a split 20M element without a fiberglass centerpiece. It is a budget friendly way to insulate the elements when you're building your next Yagi, LPDA or any boom antenna with a 2" OD boom.

The BEB-2 accepts up to a 7/8 inch element, which is perfect for most 20-6M antennas. Building a large antenna? Use our DXE-BEB-1 Boom-to-Element Bracket.

The DXE-BEB-2 comes in 2 pieces and bolts together with a DXE-BEB-2HWK Stainless Steel Hardware Clamp Kit that also holds it securely to the boom. The hardware kit includes four stainless steel bolts, washers and lock nuts for assembling the bracket. A Gorilla Grip® stainless steel boom clamp is included to attach the element to the bracket. The vibration-resistant nuts have nylon inserts. The DXE-BEB-2HWK Hardware Kit for the DXE-BEB-2 Bracket is sold separately. Larger antennas that experience high winds will require the boom clamp to be pinned to the boom.

DXE-BEB-2	Insulated Boom-to-Element Bracket, 2" Boom	$16.99
DXE-BEB-2HWK	Hardware Kit for DXE-BEB-2	$19.99

DXE-BEB-3

DXE-SEI-1

Great for 6 meter Yagis, the DXE-BEB-3 Insulated Boom-to-Element Bracket is a handy, budget-conscious way to mount elements to smaller (1.25 inch to 1.75 inch) booms. The bracket accepts elements up to 3/4 inches. Use the DXE-SEI-1 Split Element Insulator for 3/4 inch OD aluminum tube for the driven element. The insulator allows the element to be securely clamped without crushing the tube.

DXE-BEB-3	Insulated Boom-to-Element Bracket, 1.25", 1.50" or 1.75" Boom	$4.99
DXE-SEI-1	Split Element Insulator	$9.99

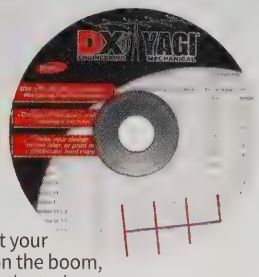
KX4O Vertical Dipole Antenna Support Plate

When John Huggins, KX4O designed his revolutionary AHVD Vertical Dipole, he probably didn't imagine that it would become so popular. The unusual "upside-down T" design delivers such impressive 20-10M coverage, that it's no surprise operators started building them. Let this plate be the foundation of your build. The weather-resistant 0.25" thick polymer plate measures 11.5" x 7.5" and is pre-drilled for easy assembly.

DXE-MMP-KX4O	KX4O Vertical Dipole Support Plate	$13.99

Yagi Mechanical® Antenna Design Software

Yagi Mechanical® is a tool for anyone who designs their own antennas or is interested in modeling an antenna they already own. Electrical design is first and foremost in crafting a useful antenna, but the mechanical side of things is also critical. After all, what good is a great performing antenna if the wind is going to break the elements when you put it up on a tower?

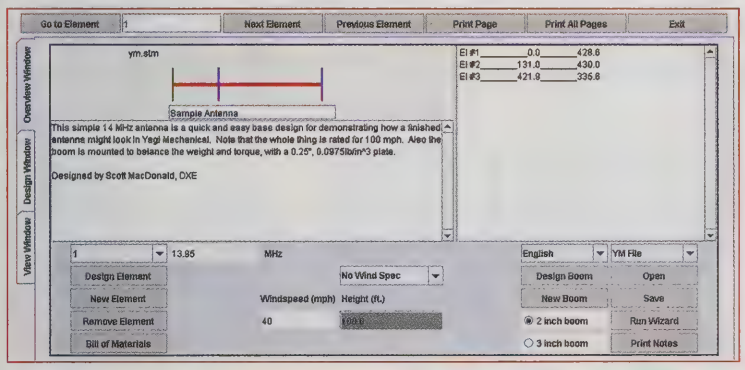


DX Engineering's Yagi Mechanical Antenna Design Software enables you to analyze your designs and instantly see where a failure could occur. Whether you use it to find weak points in old designs or to start brand new designs with robust mechanical properties, Yagi Mechanical will provide you with the tools you need to test your elements for wind and ice, to balance weight and torque on the boom, and determine if the materials you have selected are up to the task.

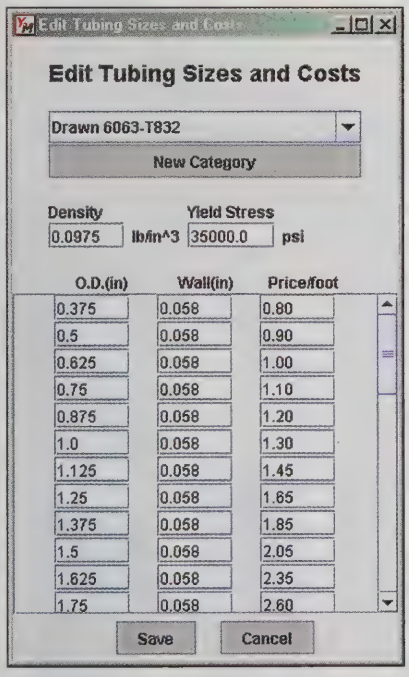
Call it good planning for the kind of stress your antennas are going to see. Call it smart design to prevent regular failures and repairs. Call it peace-of-mind at an affordable price. We call it Yagi Mechanical!

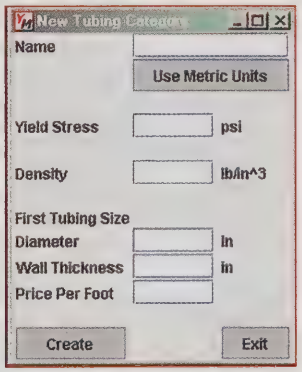
Yagi Mechanical is a Windows® program, so the graphic user interface should be very familiar.

DXE-SOF-YAGIMECH	Yagi Mechanical® Antenna Design Software w/Key	**$39.99**
DXE-SOF-YMKEY	Yagi Mechanical® Key Code Only	**$39.99**
DXE-SOF-YMDISC	Yagi Mechanical® Backup CD Only	**$20.99**



Create and analyze mechanical design parameters.



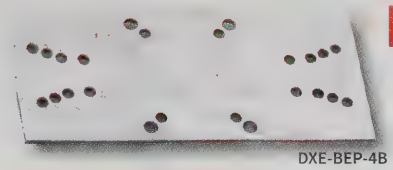


FREE trial version at DXEngineering.com

If you are interested in Yagi Mechanical, you can download a trial version FREE! The save, print, and update functions are disabled, but the rest of the program is fully functional, allowing you to try everything before you buy.

Easy International Ordering. DXEngineering.com has a simple shipping calculator that can give you an exact price total before you check out.

No matter what country you're in, we can get you the parts and gear you need to get on the air. Same-day shipping means you'll get it quickly, too.



DXE-BEP-4B

Boom-to-Element Plates

Boom-to-element plates are similar in function to insulated boom-to-element brackets, in that they each attach the elements to the boom. The primary advantage of plates over brackets is that it is a simple mechanical arrangement. The main disadvantage is that the plate does not insulate the element from the boom, which means that the element dimensions that you bring from your antenna design program (YO, AO, EZNEC and others) will be incorrect unless you make some length adjustment for the width of the plate and boom.

DXE-BEP-4B

Fabricated from alloy 6061-T6 aluminum, the DXE-BEP-4B is primarily for the smaller 6 meter, 12-10 meter and 17-15 meter beam. This plate can also be used to mount smaller VHF/UHF antennas to a mast using appropriate clamps. The dimensions of the DXE-BEP-4B are 8 inch L x 3.5 inch W x 0.25 inch T. This plate comes pre-drilled for DX Engineering Saddle Clamps.

- For mounting a 2 inch boom use (2) DXE-SAD-200A Clamps
- For mounting a 1.50 inch boom use (2) DXE-SAD-150A Clamps
- For mounting a 1.25 inch grounded element use (2) DXE-SAD-125A Clamps
- For mounting a 1 inch grounded element use (2) DXE-SAD-100 Clamps
- For mounting a 3/4 inch grounded element use (2) DXE-SAD-075 Clamps

DXE-BEP-5B

Fabricated from alloy 6061-T6 aluminum, the DXE-BEP-5B is for the larger 17-15 meter and 20 meter beams. This plate can also be used to mount smaller VHF/UHF antennas to a mast using appropriate clamps. The dimensions of the DXE-BEP-5B are 8 inch L x 3.5 inch W x 0.25 inch T. The plate comes pre-drilled for DX Engineering saddle clamps.

DXE-BEP-5B

- For mounting a 3 inch boom use (2) DXE-SAD-300A Clamps
- For mounting a 2 inch boom use (2) DXE-SAD-200A Clamps
- For mounting a 1.50 inch grounded element use (2) DXE-SAD-150A Clamps
- For mounting a 1.25 inch grounded element use (2) DXE-SAD-125A Clamps
- For mounting a 1 inch grounded element use (2) DXE-SAD-100 Clamps

DXE-BEP-4B	Boom-to-Element Plate, 1.5" or 2" booms	**$19.49**
DXE-BEP-5B	Boom-to-Element Plate, 2" or 3" booms	**$20.49**

Pre-Drilled Boom-to-Mast Mounting Plate

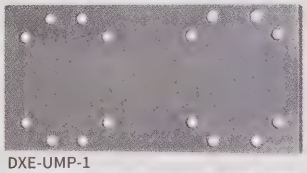
DX Engineering BMP-2B Boom-to-Mast Plates keep your Yagi stable and properly secured on the mast. Fabricated from 0.250 in. thick 6061-T651 aluminum, BMP-2B plates come pre-drilled for DX Engineering Saddle Clamps for greater clamping power without crushing the tubing.

DXE-BMP-2B	Plate for 1.5", 2", 3" Mast and Boom, Pre-Drilled, 8" W x 10" L	**$34.99**

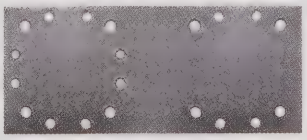
Multi-Purpose Mounting Plates

These universal mounting plates can be used for many applications. They are available in aluminum or non-conductive black polymer and come blank or pre-drilled to accept our standard DXE-CAVS-1P V-Saddle Clamps, which can accommodate tubing or pipe from 1/2 inch to 1.75 inch OD.

If you are looking for larger sizes, one of our Boom-to-Mast Plates may work. They are available for 1.75 inch, 2 inch and 3 inch OD tubing or pipe. Visit DXEngineering.com for the clamps recommended for use with each specific plate.



DXE-UMP-1



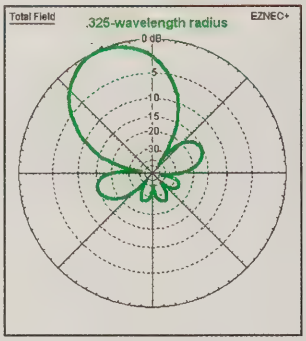
DXE-UMP-2

DXE-UMP-1	Universal Mounting Plate for 1.75" Saddle Clamp	**$17.99**
DXE-UMP-2	Universal Mounting Plate for 2" Saddle Clamp	**$17.99**
DXE-MMP-P2	Non-Conductive Blank Polymer Plate, 1/4" x 7.5" x 11.5"	$7.49
DXE-MMP-P3	Non-Conductive Blank Polymer Plate, 1/4" x 7.5" x 16"	$9.99

Need help with your project? Call the tech line at 330-572-3200!

DX ENGINEERING

DXE-RCA8C-SYS-4P



Receive 8 Circle Packages

DX Engineering Receive 8 Circle Arrays are designed to be used with eight identical, symmetrically-spaced vertical elements—active or passive—to provide switching for an eight-direction receiving antenna system. (Passive elements will generally provide you with a monoband receiving system).

The Receive 8 Circle system uses time-delay phasing (rather than conventional narrow-band, frequency dependent phasing) to provide eight 45 degree-spaced directional patterns. The time-delay phasing is directivity-optimized to produce wider and deeper rear nulls and a narrower main lobe. The result is greatly reduced noise and undesirable signals for a superior front-to-rear ratio (F/R). Better control of phase and currents provides a cleaner pattern than found on vertical antenna transmit arrays.

The system also offers greater reliability in receiving applications. The RC8 controller uses sealed relays—sized for receiving applications—with oxidation-resistant silver contacts. Most transmitting four-square switches use large open-frame relays with exposed brass contacts, which can lead to contamination, oxidation and poor conductivity.

The DXE-RCA8B-SYS-4P Complete Electronics Package Includes everything from DXE-RCA8-SYS-2P, plus:

- DXE-ARAV4-8P Active Receive Antenna Array Package (see below)
- Two DXE-6UF-1000 F6 flooded coax cable, 75 Ω (1,000' each)
- DXE-CPT-659 Coax Cable Prep Tool
- DXE-SNS-CT1 Snap-N-Seal® crimp tool for 75 Ω coax
- DXE-SNS6-25 Snap-N-Seal® connectors for F6 coax, 25 pieces

DXE-RCA8C-SYS-4P Receive 8 Circle Complete System Package **$3,146.15**

DXE-RCA8C-SYS-2P

The DXE-RCA8B-SYS-2P Controller and Switch Package includes:

- DXE-RC8B-1 Receive 8 Circle Array Controller
- DXE-EC-RCA8 Receive 8 Circle BCD Control Console
- DXE-SSVC-2P Stainless Steel V-Clamp for mounting the RC8B to a 1-2" OD post

DXE-RCA8C-SYS-2P Receive 8 Circle Controller and Switch Package **$629.98**

Control Cable

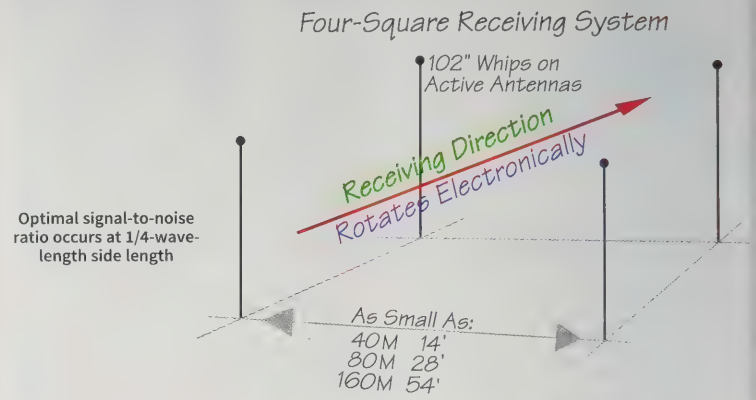
COM-CW4 Cable, 4-Conductor ..... per foot **$0.45**

COM-CW4-500 Cable, 4-Conductor, 500' Spool **$165.99**

Complete Electronically Steered Receiving System

- More than 5 S-units of front-to-back on optimized systems
- Works best on 160M, 80M and 40M
- Like having a rotatable Beverage antenna
- Fits in YOUR yard!
- Easily installed—no radials required

Want to know what people are saying about this system?
Visit: www.eham.net/reviews/detail/5336



DX ENGINEERING

DXE-RFS-SYS-2P

DXE-RFS-SYS-4P Complete Package

Receive Four-Square System

- W8JI design
- Switchable in four 90 degree spaced directions
- Reduced susceptibility to high angle signals compared to EWE, Flag, Pennant or K9AY arrays
- Excellent directivity in a small space for better signal-to-noise ratio
- Operates from 100 kHz to 30 MHz
- Each complete system package includes four active vertical antennas, RFS-2 switch, EC-4 controller, 1,000 feet of 75 Ω RG-6 flooded cable, F connectors and tools
- TVSU-1B Time Variable Sequence Unit included to protect active antennas installed as close as 1/10-wavelength from transmitting antenna

DXE-RFS-SYS-4P Receive Four-Square System Complete Package **$1,933.04**

DXE-RFS-SYS-2P Four-Square Controller and Switch Package **$404.98**

System components also available individually.

DXE-EC-4 Four-Square Controller, 4-Position BCD Output **$124.99**

DXE-TVSU-1B Time Variable Sequence Unit **$219.99**

DXE-CPT-659 Coaxial Cable Stripping Tool **$29.99**

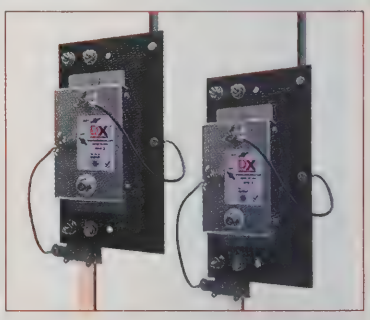
DXE-SNS-CT1 Snap-N-Seal® Compression Tool **$39.99**

DXE-SNS6-25 Snap-N-Seal® Coaxial Connectors **$29.99**

DX ENGINEERING

Active Receive Antenna Packages

The DX Engineering Active Receive Antenna Array Packages contain two, four or eight Active Receive Antennas. They offer excellent receiving performance from 100 kHz to 30 MHz while using only 102" antennas as the vertical elements. This results in significantly better weak signal reception due to lower spurious signal interference and reduced noise. The packages also includes wiring and mounting clamps.

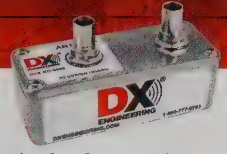


DXE-ARAV4-2P

DXE-ARAV4-2P Active Receive 2 Antenna Package **$519.99**

DXE-ARAV4-4P Active Receive 4 Antenna Package **$1,039.98**

DXE-ARAV4-8P Active Receive 8 Antenna Package **$2,079.96**



DX ENGINEERING

Receiver Guard RG5000HD

Protect your sensitive receiver front-end against high levels of RF from nearby transmit signals. A DX Engineering Receiver Guard is the best limiter device to choose if your receive antenna input could be subjected to high levels of RF. They are a must for contesting stations and are useful for all stations, for Field Day, SWLs and when a neighbor or passing mobile generates potentially damaging RF peaks.

Extensively tested and proven in real-world stations, the RG5000HD works for all radios and offers the ultimate performance required by the upper tier of transceivers tested to have the best narrow-spaced third-order dynamic range or published RMDR (Reciprocal Mixing Dynamic Range). These transceivers include Elecraft K3 series, FlexRadio 6700, 5000A and 3000, Icom IC-7851, Kenwood TS-990S and 590S(G), TenTec Orion series, Yaesu FTDX-5000 series, and other radios with similar performance.

At the heart of the Receiver Guard is a highly effective electronic RF limiter covering 500 kHz to 150 MHz with an insertion loss under 0.15 dB at 50 MHz and under 0.3 dB to 150 MHz. Its multi-stage design includes a gas discharge tube for maximum pulse energy protection. The RG5000HD is a passive electronic limiter, not a filter, so competitive contesting stations still use separate band filters. The Receiver Guard's limiters can reject 10 watts of catastrophic receive antenna feedline RF while passing a signal of about 87 dB over S-9, which is only 25 mw! That level is well under the point of front-end damage.

When there are high levels of RF on your receive antennas, DX Engineering's RG5000HD generates far less harmonic noise than other limiters on the market, which allows your station to continue to operate safely and competitively. At normal HF signal levels the Receiver Guard operates continuously with no effect on the performance of your station while providing the best possible protection for your radio.

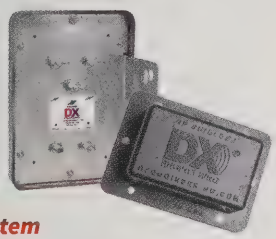
The RG5000HD-PM variant is a Plug-In Module version of the Receiver Guard HD, allowing it to be installed in one of the expansion slots of our NCC-2 and RTR-2 units.

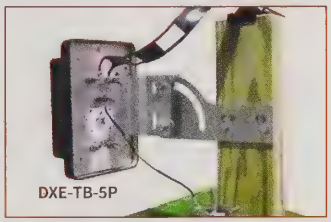
DXE-RG5000HD Receiver Guard RG5000HD $89.99
DXE-RG5000HD-PM Receiver Guard RG5000HD Plug-In Module $74.99

Dual Module Chassis

DX Engineering has made it simpler and more convenient to protect your receiver and enhance its performance. Each multi-purpose DMC-2 receive device box serves as the connector and power interface box for two DX Engineering plug-in modules and receive filters. It's perfect for creating a wide pass filter, protecting a receiver with a filter and a limiter, or adding a preamplifier that has filtering or limiter protection. A DXE-RXFL-1 Receive Filter Adapter Board is required to install optional RXFL receive filters. The unit can accommodate one or two filters to create the filter type and input signal band pass frequency coverage and limitations that serve your needs. For full details and a list of compatible modules and RXFL receive filters, enter "DX Dual Module" at DXEngineering.com.

DXE-DMC-2 Dual Module Chassis $104.99





DXE-TB-5P

Reversible Beverage System

The DXE-RBSA-1P allows two Beverage antennas receiving in opposing directions to share the same space. With the DXE-RBSA-1P, you can build a 2-wire reversible Beverage antenna system with superior signal-to-noise ratio, most useful at 160, 80 and 40M bands. The W8JI design consists of a Feedpoint System and Reflection Transformer. You can operate and even confirm the F/R ratio of this antenna at any time from the operating position.

This system is immune to strong signal overload and core saturation common in multi-transmitter contesting environments, and is used by winning contest stations and low-band DXers.

The DXE-RBSA-1P has two antenna ports. The standard configuration of the DXE-RBSA-1P has one port terminated (termination included) so both antennas share a common feedline. Applying 10 to 18 Vdc to the feedline switches between the antenna, and the direction of reception. For simultaneous reception from opposing directions, each of the two feedlines connect to a separate receiver.

While the DXE-RBSA-1P is optimized to use 450 Ω ladder line for the antenna element, the system will work with any 300-600 Ω 2-wire line. 450 Ω ladder line is available from DX Engineering, sold separately. DX Engineering also sells quality 75 Ω coax and F connectors for outdoor installations.

Benefits

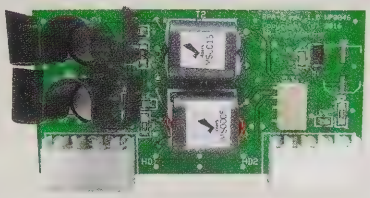
- Broad operating range, 0.2 to 30 MHz
- Fully isolated grounds used to prevent common-mode noise and unwanted signals
- 75 Ω design enables the use of high quality, low cost cable with F connectors
- Metal housings used for superior shielding and improved life

DXE-RBSA-1P Reversible Beverage Feed System $223.98
DXE-TB-5P Tilt Base for DXE-RBSA-1P $21.99

DX ENGINEERING

RPA-2 Modular Receive Preamplifiers

DXE-RPA-2



DXE-RPA-2-PM

We've completely redesigned some of our most popular products to make them easier to use. This newest version of our RPA series preamplifier boasts the same industry leading performance as the previous version. The key improvement here is its internal expansion slot that allows you to add one of our new plug-in modules, like the Receiver Guard or the 75 to 50 Ω impedance transformer. This new unit also features BNC and F connectors to ensure a reliable, 50 Ω connection.

These low noise preamps are optimized for the 300 kHz to 35 MHz range, letting you hear the weakest signals without artificially raising the noise. The use of robust components allow these preamplifiers to withstand high signal levels while providing superior dynamic range and third-order intercept performance that equals or exceeds most transceiver front-ends. RPA-2 Modular Receive Preamplifiers include our exclusive, advanced push-pull design that eliminates harmonic distortion. Their high quiescent current increases their ability to handle strong signals without distortion or overload.

To ensure you get the highest performance and reliability out of your RPA-2, we highly recommend using a well filterered, regulated 13.8 Vdc power supply.

RPA-2 Series Specifications

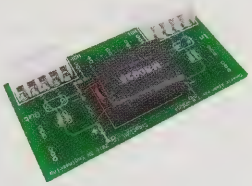
- Gain: 16 dB, +/- 1.5 dB over entire frequency range
- Output Third Order Intercept: 43 dBm
- Noise Figure: 3.5 dB
- One dB Compression Point: +26 dBm (400 mW output)
- Dynamic Range, IM3: 110 dB or greater (500 kHz BW)

The RPA-2-PM is a Plug-In Module version of the same unit, allowing it to be installed in one of the expansion slots of our NCC-2 and RTR-2 units.

DXE-RPA-2 Modular Receiver Preamplifier $148.99
DXE-RPA-2-PM Receive Preamplifier Plug-In Module $49.99

DX ENGINEERING

75 to 50 Ω Impedance Plug-In Module



The DX Engineering RPA-2, RTR-2 and NCC-2 units accept 50 Ω input impedances. This handy PCB card plugs into your RPA-2, RTR-2 or NCC-2 and allows them to accept a 75 Ω receive antenna feedline.

DXE-IT-PM 75 to 50 Ω Impedance Plug-In Module $29.99

2-Port Receiving Antenna Switch

Select one of two output ports (generally connected to different receiving antennas) from one feedline using the DXE-RLS-2. Install the DXE-RLS-2 with two DXE-RBS-1P Reversible Beverage Antenna Systems and select four directions using a single main feedline. Install one or more DXE-RLS-2 switches to expand larger Beverage arrays and share the feedline back to the operating position.

Applying a nominal 12 Vac or DC control voltage through the feedline activates transfer to port 2. Use DX Engineering's DXE-FVC-1 Voltage Coupler to supply the control voltage through the feedline.

Benefits

- Metal housings used for superior shielding and improved life
- High-quality components
- Reliable CATV F connectors standard
- Broad 0.3 to 30 MHz operating range with 75 Ω systems
- Jumper-selectable—control voltage pass-through to the selected port

DXE-RLS-2 Receiving Antenna Switch $89.99

Feedpoint Voltage Coupler

- Inject control voltages onto feedline
- Injects +/- 12 Vdc or 12 Vac
- For use with DXE-RBS-1P Reversible Beverage System or Remote 2-Position Switch DXE-RLS-2
- 120 Vac supply included

DXE-FVC-1 Feedpoint Voltage Coupler $99.99

Visit DXEngineering.com for the latest limited-time offers and special savings!

DX ENGINEERING

RTR-2 Modular Receive-Transmit Interface

The new RTR-2 is the safest solution for adding a separate receive antenna to a transceiver that doesn't have a dedicated receive antenna port. This fast receive-transmit relay switches between antennas without worry. It has a unique failsafe keying input plus a new amplifier key out. Sharing main antenna with SDR receiver/display using optional external splitter is easy, or use it as a T/R switch for boat anchors. More new RTR-2 features include Bias-Tee for active vertical or magnetic loop antennas plus this unit operates on 12-21 Vdc; three internal slots for new plug-ins; impedance transformer (for 75 Ω feedlines), Receiver Guard and Receive Preamplifier modules, front panel switch for preamp in/out, 50 Ω, BNCs and SO-239s, 200W, 1.8 to 54 MHz.

Owners of Kenwood radios have previously been unable to use either the RTR-1 or RTR-2 because of interface problems. We've remedied that issue with our new KWD-RTR keying cable. Check your Kenwood's compatibility at DXEngineering.com.

DXE-RTR-2	Modular Receive-Transmit Interface	$229.99
DXE-KWD-RTR	Special Kenwood/RTR Keying Cable	$35.99
DXE-RG5000HD-PM	Receiver Guard 5000 HD Plug-In Module	$74.99
DXE-IT-PM	75 to 50 Ohm Impedance Transformer Plug-In Module	$29.99
DXE-RPA-2-PM	Receive Preamplifier Plug-In Module	$49.99

Receive Feedline Current Choke

The Receive Feedline Current Choke (RFCC) is the most effective solution to common-mode noise or unwanted signal ingress in receiving systems available. It provides thousands of ohms isolation between the input and output coaxial shield connections while passing desired signals, including DC or low frequency AC control signals. The RFCC has extremely high isolation impedance, which effectively blocks common-mode noise or unwanted signals, even in the presence of very poor grounding. The RFCC is effective from 300 kHz to 30 MHz. It comes with standard type F female connectors, although it can be used in any 50 to 75 Ω receiving system.

DXE-RFCC-1	Receive Feedline Current Choke, 50/75 Ω, 0.3-30 MHz	$78.99

Time Variable Sequence Unit

Protect your active antennas, transmit/receive relays and other equipment with this sequence unit. You get full control of the timing between your radio and your amplifier. This microprocessor-controlled unit provides 0-30 milliseconds of delay, in 2 millisecond increments to as many as 5 outputs tied to your key, in-line.

Plus, the DXE-TVSU-1B has a built-in side tone generator for CW. Which means you can listen to what you're keying while it's being held in the bucket brigade delay for transmit after the programmed delay. This side tone is adjustable from 300 to 1000 Hz in 50 Hz steps. The unit supports full break-in CW and requires 13.8 Vdc. It also allows you to use DX Engineering's Active Receive Antennas in close proximity to your transmit antennas.

DXE-TVSU-1B	Time Variable Sequence Unit	$219.99

Single Direction Beverage Feed System

The DXE-BFS-1 is a single-wire Beverage Feed System. This W8JI design is immune to strong signal overload and core saturation common in multi-transmitter contesting environments, and is used by winning contest stations and low-band DXers. The unit uses an isolated-winding, matching transformer system to significantly increase the signal-to-noise ratio in Beverage and other high impedance antennas.

The DXE-BFS-1 works with antenna impedances from 400-500 Ω. Included with the DXE-BFS-1 is a 470 Ω, 2 watt non-inductive resistor that withstands nearby lightning strikes significantly better than hard-to-find carbon composition resistors.

Feedline impedance on the DXE-BFS-1 is designed for 75 Ω, although it will work with 50 Ω coax. The DXE-BFS-1 uses an industry standard CATV F connector. DX Engineering sells quality 75 Ω coax and F connectors for outdoor installations.

Benefits

- 100 kHz to 30 MHz operating range
- Spark gaps minimize damage from lightning
- Wing nut terminals eliminate soldering
- Metal housings used for superior shielding and improved life
- Flange-mount holes for easy mounting
- Ground isolated secondary essential for building Beverage arrays

DXE-BFS-1

DXE-BFS-1	Beverage Feed System, with One Resistor	$54.99
DXE-ECM-R470-2	470 Ω, 2 Watt Resistor, Lightning Damage-Resistant, Pack of 10	$23.99

DX ENGINEERING

Active Magnetic Loop MF/HF Receiving Antenna

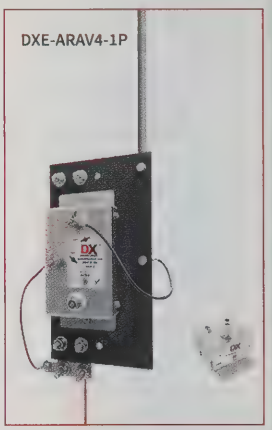
The well-known RF-PRO-1B® is now manufactured and sold exclusively by DX Engineering. This original Pixel loop design incorporates a high performance Norton preamplifier designed by Clifton Laboratories' engineer Jack Smith, K8ZOA with excellent broadband reception from 50 kHz to 30 MHz. Installation is easy, because it's only 38 inches in diameter. When rotated, this antenna provides deep nulls for effective reduction of directional noise and interfering signals. Ideal for Amateurs, SWLs and AM DXers, this loop also offers up to 30 dB rejection of electrostatic field noise. This receive only antenna cannot be connected to a transmitter RF output.

- Rejects power line noise
- Rugged construction, easily mounts to a pole or flat vertical surface
- No manual tuning necessary
- Low profile design works at ground level
- Modular construction for easy installation and maintenance

DXE-RF-PRO-1B	Active Magnetic Loop Antenna	$499.99

DX ENGINEERING

DXE-ARAV4-1P



Active Receive Antenna System

DX Engineering's Active Receive Antenna System offers excellent receiving performance using 102" antenna elements. The unique design is vastly superior to traditional active antennas in both signal handling and feedline decoupling. You get significantly better weak signal reception.

Available in ground mount vertical configuration, this system includes a non-conductive mounting plate, clamps, active matching system, and the 102" elements.

When space is limited, use the DXE-ARAV4-1P in conjunction with the DXE-TVSU-1A to provide for operation within 1/10-wavelength of a transmit antenna. The active antennas have relay protection to prevent overload of the transmit signal. The DXE-TVSU-1A sequencer controls switching times to ensure the receive system is protected before transmit power is applied. Use the DXE-ARAV4-4P, DXE-TVSU-1A and DXE-RFS-2 to provide four-square operation within 1/10-wavelength of a transmit antenna.

The ARAV4-1P can be used as a single element or in combination with DX Engineering's RFS-2 Receive Four-Square Antenna System to build a broadband directional array that can be switched in four directions to peak the signal or null out noise. Great for suburban or rural locations.

- Sensitive—weak signal sensitivity rivaling full size antennas
- Wide frequency coverage—100 kHz to 30 MHz
- Excellent strong signal handling—outstanding third order intercept of +30 dBm
- Reduced noise—quiet FET followers and high feedline shield isolation
- Easy mounting and installation—pre-drilled mounting plate and universal clamps

DXE-ARAV4-1P	Active Receive Antenna, Vertical Configuration	$349.99

DX ENGINEERING

Splitter/Combiner

Use this to combine two receiving antennas to form an array or to split the signal from an antenna to feed two receivers. The DXE-RCS-2 also reduces problems and performance shortfalls caused by impedance errors in less-than-perfect antenna systems. This unit has a broad, 0.3 to 30 MHz range and features spark gaps to lessen damage from lightning strikes.

Combining

- Matches the entire antenna system to cable impedance
- Wide bandwidth
- Built-in isolation and balancing
- Very high isolation between ports 1 and 2

Splitting

- Typical signal level reduction just over 3 dB per port
- Provides equal power, voltage and current to matched loads on ports 1 and 2
- The individual receiver will not seriously affect the signal level of the other

DXE-RSC-2	2-Port Splitter and Combiner	$76.99

DX ENGINEERING

NCC-2 Receive Antenna Phasing System

The NCC-2 allows you to phase one receive antenna with a transmit antenna or two receive antennas with each other. That means you can use the NCC-2's phasing and balance controls to electronically "rotate" an antenna pattern, steering the pattern null(s) to reduce interference, so you'll enjoy improved reception and signal-to-noise ratio. Even if you have space constraints on your property, you can enjoy the benefits of antenna phasing and noise-nulling.

This new unit is completely redesigned with improved phase and balance capability, giving you better control over the variations in signal levels from different antennas. A built-in Receive-Transmit Interface relay system allows direct transceiver connection.

The NCC-2 has four advantages over typical phased antenna systems. First, the array can be electronically steered or directed using physically stationary antennas. Second, the user adjusts the direction and wave angle of either a null or peak. Third, the response can change from a signal null to a perfect signal peak with the flip of a single switch. Lastly, front panel adjustments compensate for less-than-ideal antenna installations, making a directional array possible in most situations.

But the really big news about the NCC-2 Receive Antenna Phasing System is expandability. It features new internal slots for installing optional DX Engineering Plug-in Modules, like the new RPA Receive Preamplifier, Receiver Guard 5000HD and 75 to 50 ohm Impedance Transformer.

NCC-2 features and quick specs:

- Nulls out noise from power lines, lamp dimmers, motors, and other electronics
- Phasing voltage controlled, allowing for precise resetting of phase
- Built-in, 2-channel voltage controlled attenuator system
- Low noise, high dynamic range amplifiers
- Separate control for reversing phase
- New key line out RCA connector for amplifier
- Capable of up to 21+ Vdc input
- Rear panel SO-239, F and BNC connectors
- Frequency range: 300 kHz to 30 MHz
- Third order output intercept (TOI): +32 dBm each input/+38 dBm combined
- Gain flatness: +/- 1 dB over complete phase rotation gain
- Attenuation adjustable from 0 dB to -40 dB
- Available phase rotation: >360 degrees between 300 kHz and 30 MHz
- Input power: NCC-2 +13.8 to 21 Vdc nominal @ 2A maximum
- Antenna feedline power: 13.8 to 21 Vdc @ 300 mA maximum

DXE-NCC-2 Receive Antenna Variable Phasing System **$749.99**
DXE-KWD-RTR Special Kenwood/NCC Keying Cable **$35.99**

NCC-2 and Filter Combos

Get more out of your NCC-2 with band-specific directional noise and signal nulling performance. By reducing or excluding frequency specific signals that normally cause interference, these filters help lower the noise floor of the desired pass-band to dramatically improve reception. Filters are available for the 160-10 meter bands, and come in low pass, band pass and high pass frequency ranges. For full details, enter "DX Filter Sets" at DXEngineering.com. Combos come with two plug-in adapter boards and two filters.

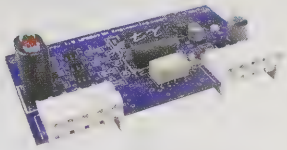
Part Number	Frequency Range	Coverage	Price
DXE-NCC2FL-BP160	Band Pass	160M	$143.96
DXE-NCC2FL-BP40	Band Pass	40M	$215.96
DXE-NCC2FL-BP80	Band Pass	80M	$143.96
DXE-NCC2FL-HP160	High Pass	160M	$123.96
DXE-NCC2FL-HP40	High Pass	40M	$123.96
DXE-NCC2FL-HP80	High Pass	80M	$123.96
DXE-NCC2FL-LP160	Low Pass	160M	$127.96
DXE-NCC2FL-LP40	Low Pass	40M	$127.96
DXE-NCC2FL-LP80	Low Pass	80M	$123.96

DXE-NCC2FL-LP80

Clifton Laboratories Products by DX Engineering

Here is welcome news for radio experimenters and electronics enthusiasts. With the acquisition of Clifton Laboratories in 2016, DX Engineering is offering updated versions of a few select devices that were created by the talented engineer, Jack Smith, K8ZOA (SK).

DX ENGINEERING New! CLIFTON LABORATORIES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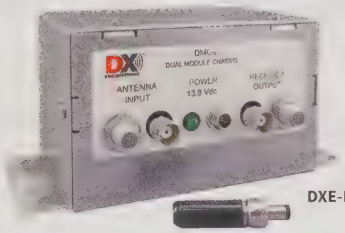
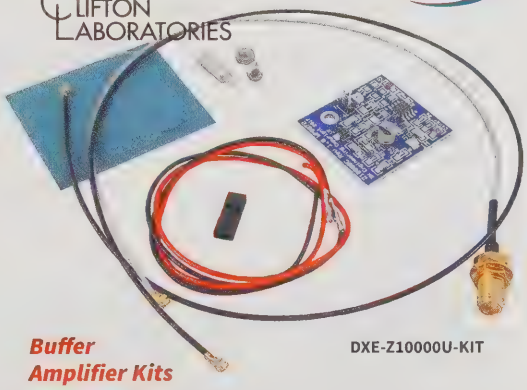

DXE-DMC-2

Preamplifier Plug-in Modules

DX Engineering has adapted the Clifton Laboratories Z10043A Norton Amplifier (12 dB gain, ultra-low noise) and the Z10046A High-Output Preamplifier (23 dB gain). Virtually identical to their predecessors, these super-versatile preamps can plug directly into the DXE-NCC-2 and DXE-RTR-2 units. Use them as a separate in-line receive-only preamplifier by installing one of these modules into the DXE-DMC-2 Dual Module Chassis.

DXE-Z10043B-PM Clifton Labs Z10043B 12 dB Norton Amplifier Plug-In Module ..... **CALL/WEB**
DXE-Z10046B-PM Clifton Labs Z10046B 23 dB Preamplifier Plug-In Module **$78.99**
DXE-DMC-2 Dual Module Chassis for DX Engineering Plug-In Modules **$104.99**

DX ENGINEERING New! CLIFTON LABORATORIES


DXE-Z10000U-KIT

Buffer Amplifier Kits

Add a spectrum/waterfall display to an older receiver or transceiver. A high input/low output impedance Buffer Amplifier can tap the IF signal from inside your radio and feed it to your SDR receiver with panadapter display. Two complete and tested Clifton Labs Buffer Amplifier Kits are offered, Universal and K2. The updated DX Engineering Z10000C PC Boards feature all the benefits of the reliable original Z10000B. Our kits include required coaxial cables, special connectors and hardware for easier installation. Instructional web links are found at DXEngineering.com, keyword "Clifton Labs."

DXE-Z10000U-KIT Clifton Labs Z10000C Universal Buffer Amplifier Kit **$43.99**
DXE-Z10000K2-KIT Clifton Labs Z10000C Elecraft K2 Buffer Amplifier Kit **$46.99**

KD9SV Products

Exclusively from DX Engineering

Get the Most from Your Low Band Receive System

Since the development of his groundbreaking 160 meter preamplifier in 1987, and ever since Gary Nichols, KD9SV, has been on a quest to create the best "Gentleman's Band" gear on the planet. To see the full product descriptions visit DXEngineering.com.

SVP-SV-RBOG

SVP-SV-PP160RBOG

Reversible Beverage-On-Ground Antenna Systems

Also know as an RBOG, these systems use a TWO conductor insulated wire placed onto or slightly in the ground. The effects of the Earth allow 160 meter reception to be optimized using only 160' to 200' wire length.

RBOGs exhibit very low noise and low signal level reception, with very good signal to noise ratios. Plus, they require far less real estate for installation than above ground Beverage antennas and they require no supports.

RBOG Reversible Beverage-On-Ground Antenna Transformers

These RBOG Transformers are sealed feedpoint and reflection units built with stainless steel hardware and isolated-ground connections. RBOG transformers are easily installed with twisted military phone wire, the same as the KD9SV Two-Direction Beverage antenna. Each transformer is connected to independent ground rods. The feedpoint transformer has two F connectors for 75 Ω coaxial cables that run to the station.

SVP-SV-RBOG RBOG Antenna Transformers **$139.99**

RBOG Reversible Beverage-On-Ground Preamp and Directional Controls

Here is the introduction of KD9SV Products' new desktop units that include the new Top Band pHMET FET Preamplifiers as well as a handy Directional Control system. They provide the required two antenna connectors and one output connector, plus a front panel switch to change direction of reception on your KD9SV RBOG Reversible Beverage-On-Ground Antenna System (or other two-direction Beverage antenna).

A built-in bypass relay allows the connected receiving antenna to be used on other bands. These units feature the same Top Band pHMET FET enhanced-gain ultra-low noise Preamplifiers developed by KD9SV for the requirements of single direction Beverage on Ground antennas (BOGs). When used with KD9SV Products' SVP-SV-RBOG Reversible Beverage-On-Ground Antenna Transformers, these preamplifier and directional switch units will help you receive 160 meter weak signals with far less noise, taking advantage of the extraordinary signal-to-noise ratios offered by BOG antennas.

SVP-SV-PP160RBOG RBOG Preamp/Directional Control **$149.99**

KD9SV Products RBOG Reversible Beverage-On-Ground Combos

This combination includes both of the products described above: the KD9SV Products RBOG Transformers and the KD9SV RBOG Preamp and Directional Control.

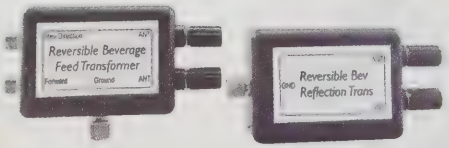
SVP-SV-RBOG-PP-P RBOG Transformers/Control Combo **$289.98**

See Beverage-On-Ground Antenna Wire below.

Beverage-On-Ground Antenna Wire

KD9SV makes this antenna wire specifically for its Beverage-On-Ground Systems. As a superior alternative to old military surplus cable, this wire consists of a non-twisted, insulated, flexible pair of 20 AWG conductors. The wire is also an excellent choice for hooking up your remote controls and sensors.

SVP-SV-RBOGANTW Beverage-On-Ground Antenna Wire, 200' Spool **$45.99**
SVP-SV-RBANTW5C Beverage-On-Ground Antenna Wire, 500' Spool **$115.99**
SVP-SV-RBANTW1K Beverage-On-Ground Antenna Wire, 1,000' Spool **$185.99**

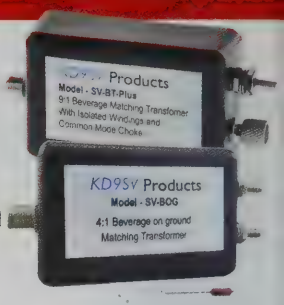


Two-Direction Beverage Antenna System

Finally hear that distant DX with this excellent low-noise Beverage wire antenna. The kit includes two optimized transformers (feed/reflection) and can be hooked up easily with standard twisted-pair element cable as the beverage wire antenna. This receive antenna kit is the perfect solution for operators who want to "roll out" their antenna seasonally and store it out of the way when not in use.

SVP-SV-RB Two-Direction Beverage Antenna System Kit **$129.99**

Beverage Antenna Matching Transformers



Now available in 4:1 and 9:1 ratios, these Beverage Antenna Matching Transformers are designed to vastly improve your receive system. KD9SV has recently upgraded these famous designs to include stainless steel hardware, isolated-ground connections and F connectors. These upgrades improve performance and help the units better withstand the elements.

The transformers are potted to prevent moisture ingress and are compatible with 50 Ω or 75 Ω cable.

SVP-SV-BT 9:1 Beverage Antenna Transformer **$32.99**
SVP-SV-BT-PLUS 9:1 Transformer with Common-Mode Choke **$49.99**
SVP-SV-BOG 4:1 Beverage On Ground Transformer **$32.99**

160/80 Meter and 160 Meter BF981 Preamplifiers

SVP-SV-160

These preamps provide enhanced reception of weak 160 and 80 meter signals in a low noise FET redesign. BF981 Variable Gain Preamps achieve a noise figure of only 0.7 dB.

Optimized with dual-band or monoband tuned input and output filtering, they keep out unwanted broadcast stations, with about 45 dB rejection performance at 1 MHz. The preamps feature a front panel 10-28 dB gain control with a CCW-off preamp bypass switch on the dual-band model and toggle switch bypass on the 160 meter model. BF981 preamps are perfect for operations on receiving loops, pennants, flags, Beverages and active arrays that offer significant signal-to-noise benefits at low signal output.

SVP-SV-DB 160/80 Meter BF981 Dual-Band Preamp **$169.99**
SVP-SV-160 160 Meter BF981 Monoband Preamp **$91.99**

Magic "T" Splitter/Combiners

SVP-SV-RSC F Connectors

SVP-SV-RSC-50 BNC Connectors

As a splitter, you can use this to connect one receive antenna to two radios or, in a combiner role, you can phase two receive antennas into one radio. It covers 500 kHz to 10 MHz and insertion loss is around 3 dB per port as a splitter or less than 0.1 dB as a combiner. The RSC-50 features BNC connectors, F connector version is RSC.

SVP-SV-RSC-50 Receive Magic "T" Splitter/Combiner, BNC **$38.99**
SVP-SV-RSC Receive Magic "T" Splitter/Combiner, F Connectors **$38.99**

VLN Preamplifier

The VLN Preamplifier is perfect if you've got a small lot and want to maximize the performance of a small receive antenna. VLN stands for "Very Low Noise," and that's important, because this adjustable 5 FET preamplifier can deliver up to a whopping 40 dB. That kind of power is perfect for low output antennas, like small flag, Waller flag, pennant, and rotary flag antennas. In fact, the VLN Preamplifier works well with virtually any receive antenna.

SVP-SV-BF-994X5 VLN Preamplifier **$185.99**

Keying Relay

This high-speed interface allows practically any amplifier to be safely connected to, and keyed by, a modern transceiver. It supports full break-in CW and can handle higher voltages than most. This is a great solution for older amplifiers using big, heavy relays. You can even use it as a CW key, keyer, relay debouncing circuit or a remote high-power DC switch.

SVP-SV-KR Keying Relay **$47.99**

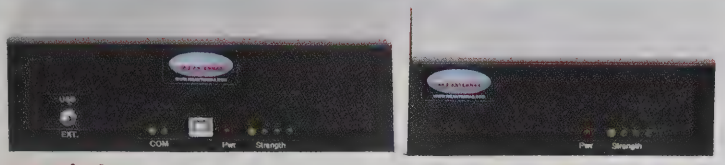
Front End Saver

If you're using a separate receive antenna, this unit eliminates the chance of accidentally destroying your radio's front end. It interrupts the receive antenna input on your radio when you key the T/R line. The Front End Saver essentially doubles as an amplifier keying interface to prevent transmitted RF energy from going directly back into your radio.

This unit works with radios that have a separate receive input and is not intended for use with negative voltage keyed amplifiers.

SVP-SV-FESSS Front End Saver **$104.99**
SVP-SV-DIN13* Adapter Cables, Icom ACCY 13-Pin DIN Plug to 2 x RCA Male **$29.99**
SVP-SV-DIN7* Adapter Cables, Icom ACCY2 7-Pin DIN Plug to 2 x RCA Male **$29.99**

*See information at DXEngineering.com regarding important safety precautions for these cables.



USB Wireless Remote Switch Control System

Control your Hi-Z Receiving Arrays wirelessly from your PC! Think of it as a "virtual" 8-conductor remote switching system. Simply install the controller/transmitter and receiver units, install the software, and after a brief setup you're ready to go. The included software has a graphical directional display, plus a comprehensive status readout that shows the active port, wireless signal strength, current time, and more. The units themselves have intuitive LED status lights for power and signal strength.

The wireless control system operates on 2.4 GHz and the receiver unit requires 12 Vdc power, either through an independent power line or though power-injected coaxial cable.

HIZ-USBWIRELESS USB Wireless Remote Switch Control System **$395.00**

KD9SV Products

SVP-SV-DXSS

DXpedition Receive Antenna Switches

Combine a KD9SV preamp with its legendary Front-End Saver and you get a DXpedition Receive Antenna Switch. That means you get a powerful preamp with dual-band band-pass filtering and lightning-fast switching. They're compatible with virtually every modern RF power amplifier. These compact switches are ideal for DXers, serious contesters and antenna experimenters. Select reception of up to 4 receive antennas or the transmit antenna.

DXpedition Switches are designed for radios that have a receive antenna input, while DXpedition II Switches work with radios that don't have a receive input. Please check the polarity of your keying line; these units require positive DC voltage.

SVP-SV-DXSS DXpedition Receive Antenna Switch..... **$353.99**
SVP-SV-DXIISS DXpedition II Receive Antenna Switch..... **$366.99**
SVP-SV-DIN13* Adapter Cables, Icom ACCY 13-Pin DIN Plug to 2 x RCA Male **$29.99**
SVP-SV-DIN7* Adapter Cables, Icom ACCY2 7-Pin DIN Plug to 2 x RCA Male **$29.99**

KD9SV Products

SVP-SV-PP-SF-160

Top Band pHEMT FET Preamplifiers

Improve your Top Band reception with a new preamplifier specifically designed for low signal level antennas. Ultra-low noise pHEMT FETs in a push-pull source follower circuit and a tuned input provide the best 1.8 to 2 MHz performance available for very low signal receive antennas. These band-pass filtered preamps reduce broadcast interference and intermodulation products that cause difficulties on Top Band. Plus, a built-in bypass relay allows the connected receiving antenna to be used on other bands.

Featuring components with rated noise figures as low as 0.4 dB and typical gain of 20 dB, these preamps have the extra capability required for small loops and are perfect for single-wire Beverage-on-Ground Antennas (BOGs). These preamplifiers have also been used successfully with flag and pennant type receiving antennas. F connectors allow easy connection to 75 ohm receive system cables.

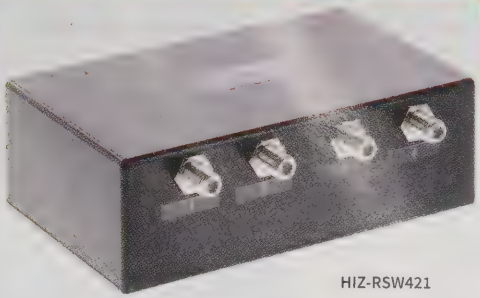
SVP-SV-PP-SF-160 Top Band Ultra-Low Noise Preamp **$139.99**

UM Unified Microsystems

RXT Terminating Resistors

Unified Microsystems continues to build top-quality high-performance parts for competitive Hams. Its RXT series terminating reisistors have been designed to work with the most popular types of low band receive antennas. The 2-watt, high-surge-tolerant resistors feature low inductance, a gas discharge tube for added electrical protection, a NEMA-rated case for handling the toughest conditions, stainless steel hardware and internally coated electronics.

UMS-RXT-1000 Terminating Resistor, 1,000 Ohms **$21.99**
UMS-RXT-470 Terminating Resistor, 470 Ohms..... **$21.99**
UMS-RXT-270 Terminating Resistor, 270 Ohms..... **$21.99**



HIZ-RSW421

Receive Antenna Switches

Control up to eight separate low band receive antennas remotely. With 70 dB of isolation between ports, these switches provide clear, uncluttered reception from only the antenna you want to hear. Plus, they eliminate the hassle of running multiple feedlines out to your antenna(s). An excellent choice for your Beverage or other dedicated receive antennas.

The switches cover 50 kHz-10 MHz with an SWR of 1.3:1 or less. To supply the required 13.8 Vdc, you can use standalone two-conductor cable or send it down your coax with a DC power injector. They all require a Control Console for remote operation, sold separately.

Hi-Z also offers desktop options, too. A simple, straightforward dial and indicator LEDs make these Desktop Receive Antenna Switches easy to use.

Part Number	Input Ports	Output Ports	Price
75 Ω Remote Receive Antenna Switches			
HIZ-RSW421	4 Female F Connectors	1 Female F Connector	**$139.00**
HIZ-RSW821	8 Female F Connectors	1 Female F Connector	**$229.00**
HIZ-RSW2X421	4 Female F Connectors (2 Sets, 8 Total)	1 Female F Connector	**$229.00**
50 Ω Remote Receive Antenna Switches			
HIZ-RSW422	4 Female BNC Connectors	1 Female BNC Connector	**$145.00**
HIZ-RSW822	8 Female BNC Connectors	1 Female BNC Connector	**$239.00**
HIZ-RSW2X422	4 Female BNC Connectors (2 Sets, 8 Total)	1 Female BNC Connector	**$239.00**
75 Ω Desktop Receive Antenna Switches			
HIZ-SW421	4 Female F Connectors	1 Female F Connector	**$149.00**
HIZ-SW821	8 Female F Connectors	1 Female F Connector	**$249.00**
50 Ω Desktop Receive Antenna Switches			
HIZ-SW422	4 Female BNC Connectors	1 Female BNC Connector	**$159.00**
HIZ-SW822	8 Female BNC Connectors	1 Female BNC Connector	**$259.00**
Control Consoles for Remote Receive Antenna Switches			
HIZ-CTRL421	Console for 4-Port Switching		**$99.00**
HIZ-CTRL821	Console for 8-Port Switching		**$109.00**

S-9 Signal Source

Troubleshoot and verify that your complex multiple-element receiving arrays are working correctly. This self-contained oscillator connects directly to 50 or 75 Ω coax or antenna systems. It is useful for measuring controller output to verify all array elements are working. This unit requires a 9V battery, and there's an LED indicator that ensures there's enough battery life to take accurate measurements.

HIZ-SIGNALSOURCE RF Signal Source **$65.00**

KD9SV Products

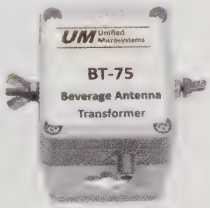
SVP-SV-CMC

Chokes, Filters, Transformers and Accessories

Complete your low-band installation with no-compromise gear from KD9SV. All of this equipment has been designed, built and tested to provide ideal low-band performance.

Part Number	Description	Price
SVP-SV-BPF	160M Band-Pass Receive Filter, 1.8-2.0 MHz	**$38.99**
SVP-SV-CMC	Common-Mode Choke, 500 kHz-10 MHz	**$35.99**
SVP-SV-PEN	Pennant Transformer & Resistor 900-75 Ω, 160/80/40M	**$25.99**

UM Unified Microsystems



Beverage Antenna Transformer

The transformer's output is a perfect match for low-loss 75 Ω RG-6 CATV coaxial cable, which keeps your overall receive antenna system cost down. Plus, it's fully enclosed in a weathertight, plastic housing, making it a great option if you deploy your Beverage antenna year-round. The BT-75 also has a built-in gas discharge tube for protection against lighting strikes. Integrated flanges make it easy to mount, too.

UMS-BT-75 Beverage Antenna Transformer **$32.99**

Call us for easy special orders!

DX Engineering is Your Exclusive Hi-Z Dealer

DX Engineering is happy to bring you quality HF Directive Receiving Arrays from Hi-Z Antennas. For years, Hi-Z Antennas has been engineering and perfecting antenna designs with one goal in mind: creating superior products. Now, through an exclusive partnership, you get high-quality Hi-Z Antennas with the customer service you expect from DX Engineering. For all of Hi-Z's products, visit DXEngineering.com.

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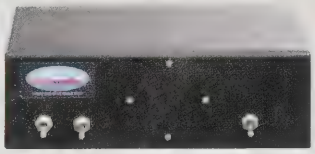
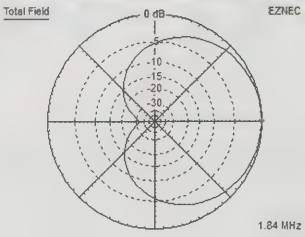
Hi-Z ANTENNAS
Culver OR tm

3-Element 4-Direction Systems, Level 2





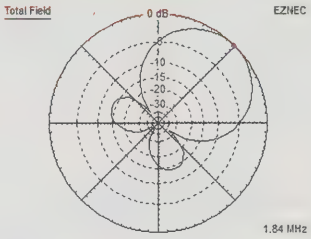
These receiving antenna systems' L configuration makes them perfect for small lots. They use three shortened elements that still provide 4-direction switching. A typical 50 foot layout of three foot tall elements and Hi-Z amplifiers can provide 30 dB of front-to-back ratio on 160 meters.

These systems are well suited for the 160, 80 and 40 meter bands, yet can still receive below the broadcast band, to 30 MHz. They require 13.8 Vdc via a 4-conductor cable: 13.8V, GND, CTRL1 and CTRL2.

HIZ-2-3-LV2-40 — 3-Element, 4-Direction System, Level 2, 40' Spacing **$439.00**

HIZ-2-3-LV2-50 — 3-Element, 4-Direction System, Level 2, 50' Spacing **$439.00**

3-Element Triangular Array Systems



These 3-element receive phased vertical arrays offer excellent performance with a small footprint. Their scalable design means you get six switchable directions and you can configure for best RDF or F/B ratio. Since there's no sequencing, the systems thrive in high-RF fields—ideal for those running QRO nearby. (These are also great contesting setups.)

These systems operate on the 160, 80 and 40 meter bands but can be used from below the broadcast band to over 30 MHz. A typical 50 foot triangular layout of 20 foot tall elements and Hi-Z amplifiers can provide 30 dB of front to back ratio on 160 meters. They use 13.8 Vdc and a 6-conductor control cable.

HIZ-3-LV2-40 — 3-Element, 6-Direction System, 40' Spacing **$705.00**

HIZ-3-LV2-50 — 3-Element, 6-Direction System, 50' Spacing **$705.00**

4-Element Array Systems

This new and unique circuit configuration uses Tri-Phase combining for extra accurate phasing and amplitude stability. This improves performance while also minimizing these systems' footprints. You configure them for optimal RFD and F/B ratio and select from four possible receive directions. Their unique design makes them great options for high-RF areas.

The systems cover 160, 80 and 40 meters, from below the broadcast band to over 30 MHz. A typical 80 foot square layout of 20 foot tall elements and Hi-Z amplifiers can provide 30 dB of front to back ratio on 160 meters.

They take 13.8 Vdc via 4-conductor cable, and you can easily upgrade to the Hi-Z 4-8 Pro.

HIZ-4-LV2-60 — 4-Element, 4-Direction System, 60' Spacing **$809.00**

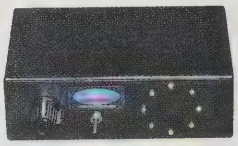
HIZ-4-LV2-80 — 4-Element, 4-Direction System, 80' Spacing **$809.00**

Shack Switch 2 Plus

This handsome and finely built manual and USB remote computer controllable switch console works with any Hi-Z receiving array or other receiving device through convenient encoder push-button selections. It comes with a list of features, including a 360 degree clockwise or counter-clockwise continuous direction encoder knob with no stops, customizable front panel readout, and 8 optically isolated sink connections for the Hi-Z array control cable. Using its intuitive menus, you can easily configure the console to control 2-, 3-, 4- and 8-element Hi-Z receive array systems either manually or via computer. Featuring a striking luminescent blue digital directional display, the unit makes a stellar upgrade to your existing system or a great way to enhance the control of any array of your own design. See DXEngineering.com for full details.

HIZ-SS2-PLUS — Universal Shack Switch w/USB Control..... **$229.99**

8-Element Array Systems

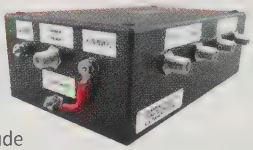


These ultra high-performance monoband arrays feature excellent performance in a small space. All the elements are active in a circle, to provide stellar receive capabilities in eight directions. The F/B ratio of the Hi-Z 8-element array outperforms long Beverage and various loop antennas. The Hi-Z 8A has a preamp external (post) phase controller, making any necessary filter insertion easy. The systems use 13.8 Vdc and a 7-conductor control cable.

HIZ-8A-LV2-80-1 — 8-Element, 8-Direction System, 80M, 100' Spacing **$1,488.00**

HIZ-8A-LV2-160-2 — 8-Element, 8-Direction System, 160M, 200' Spacing **$1,488.00**

4-8PRO 8-Element Tri-Band Array Systems



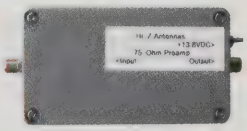
Using a new and unique circuit configuration, these antennas are essentially two interleaved Hi-Z 4S systems. They feature Tri-Phase combining to give you super-accurate phasing and amplitude stability, as well as the least attenuation at all eight overlap points.

A typical 113 foot diameter layout of 20-24 foot tall elements and Hi-Z amplifiers can provide 30 dB of front to back ratio with 8 directions. These systems perform well in high-RF fields. They cover 160, 80 and 40 meters, and are powered by 13.8 Vdc through a 5-conductor control cable.

HIZ-4-8P-LV2-85 — 8-Element 8-Direction System, 85' Spacing **$1,303.00**

HIZ-4-8P-LV2-113 — 8-Element 8-Direction System, 113' Spacing **$1,303.00**

75 Ω Inline Preamplifier



This 75 Ω cable amplifier provides a precision termination point for typical antenna array controllers/combiners. You'll find this same preamp on Hi-Z's 160 and 80 meter receiving antennas. It is connects to the output of an array controller and provides 15 dB of voltage amplification. External connection requires +13.8 Vdc at .04 amps.

HIZ-PRE-AMP — Inline 75 Ω Preamplifier **$80.00**

DX ENGINEERING

Vertical Antenna

DX Engineering has the perfect antenna to compliment your Hi-Z system. This 24 foot telescoping aluminum tubing antenna is made to withstand the elements. It includes an earth mount and jumper wires to hook up your optional Hi-Z amplifier.

DXE-AL24 — Vertical Antenna, for Hi-Z Receive Systems **$149.99**

DX ENGINEERING

2-Port Splitter-Combiners

Before you use a standard parallel connection to combine antenna systems, check out the advantages of DX Engineering's new 2-Port Splitter-Combiners. Available for 50- or 75-ohm systems, these units can be used to split one RF signal to feed two receivers or the receiver inputs of one transceiver and a separate receiver. They can also be used to combine two receiving antennas in phase, such as beverage antennas, to form a phased receive array. The splitter-combiners match the entire system to the feedline impedance, have extremely high bandwidth, limit signal loss to 3 dB per port, and provide high isolation between ports, preventing either antenna or device from interfering with the other during normal operation.

DXE-SC-50 — 50 Ohm, BNC female connectors..... **$91.99**

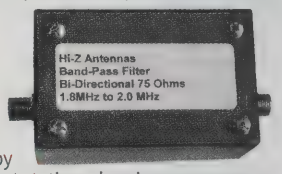
DXE-SC-75 — 75 Ohm, F female connectors **$94.99**

Antenna Amplifier PLUS-6

This weatherproof and ruggedized amplifier is the same unit found in Hi-Z's receiving arrays and can be used on non-resonant high impedance vertical elements. It has built-in common-mode isolation, and provides F connector 75 Ω matched output impedance and increased gain of plus-6 dB. The amplifier requires 13.8 Vdc fed on the coax.

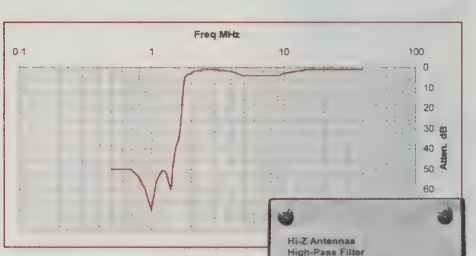
HIZ-PLUS6-AMP — High Impedance Amplifier.... **$104.00**

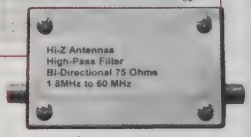
Band-Pass Filter



If you have a ton of interference from nearby high-power AM broadcast stations, here's your answer. This 75 Ω band pass filter gives you 35 dB of attenuation at 1600 KHz and much more at lower frequencies with an insertion loss of about 2 dB in the pass band. The band-pass 3 dB corners are at 1.8 MHZ and 2.0 MHz.

HIZ-BPF — Band-Pass Filter, 1.8 to 2.0 MHz **$48.00**





High-Pass Filter

Protect your preamp or receiver from high level AM broadcast frequency signals. Attenuation is a nominal 30 dB at 1630 KHz and much more at lower frequencies. Insertion loss is an average 2 dB in the pass band. The lower frequency corner is –3 dB at 1.8 MHz.

HIZ-HPF — High-Pass Filter, 1.8 to 60 MHz **$48.00**

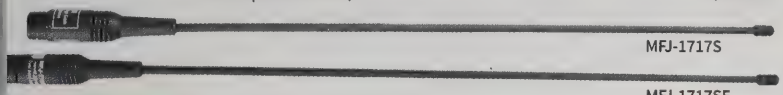
We stock many more items than we can show. See them all at DXEngineering.com!

MFJ-1977

Extra-Long Telescopic Antennas

If you're building a dipole, screwdriver, base or mobile antenna, MFJ offers you a great starting point. Made from stainless steel with standard 3/8"-24 mounts, these antennas are also perfect for traveling, DXpeditions, vacations and Field Day.

MFJ-1976	Telescopic Antenna, 10'	$44.95
MFJ-1977	Telescopic Antenna, 12'	$44.95
MFJ-1979	Telescopic Antenna, 17'	$59.95


MFJ-1717S
MFJ-1717SF

HT Antennas

By upgrading your HT's original-equipment antenna, you can get significant coverage gains. MFJ offers some great options to increase the gain of your handheld. These durable antennas are well suited to field conditions.

Part Number	Description	Length	Price
MFJ-1714	Monoband, Telescopic, 1/2-Wave on 2 Meter, BNC	40"	$16.95
MFJ-1714S	Monoband, Telescopic, 1/2-Wave on 2 Meter, SMA Male	40"	$16.95
MFJ-1712S	Dual-Band, Telescopic, 1/4-Wave on 2 Meter, 5/8-Wave on 70cm, 7.25" Collapsed, SMA	19"	$14.95
MFJ-1716	Dual-Band, Flexible, Loaded 1/4-Wave on 2 Meter, 1/4-Wave on 70cm, BNC	7.5"	$14.95
MFJ-1717S	Dual-Band, Flexible, 1/4-Wave on 2 Meter, 1/2-Wave on 70cm, SMA Male	15.75"	$21.95
MFJ-1717SF	Dual-Band, Flexible, 1/4-Wave on 2 Meter, 1/2-Wave on 70cm, SMA Female	15.75"	$19.95

HT Antennas

CMA-SMA-24 CMA-SMA-24J

Maximize your HT or scanner performance. Comet's HT antennas offer significant gain improvements over your original antenna and are super-rugged, making them perfect for use in the field. Many have extended receive capabilities—visit DXEngineering.com for all of the specs. Available in multiple connector types, sizes and band coverage, Comet Antennas are excellent replacement antennas for your scanner or HT.

Part Number	Description	Length	Gain	Price
CMA-SMA-24	Dual-Band, Flexible, SMA Male, 20 W Power Rating	15.75"	2.1 dBi (2M) 3.5 dBi (70cm)	$24.99
CMA-SMA-24J	Dual-Band, Flexible, SMA Female, 20 W Power Rating	17"	2.1 dBi (2M) 3.5 dBi (70cm)	$24.99

Mobile Antennas

MFJ-1728B

Durable, powerful, mobile. MFJ gives you excellent, high-performance mobile antennas that will stand up to miles of use. Whatever band you choose, MFJ Mobile Antennas are designed with the serious operator in mind. For complete specs on any MFJ mobile antenna visit DXEngineering.com.

Mobile HamTenna Whips, 3/8"-24

MFJ-1675T	75M	$24.95
MFJ-1640T	40M	$19.95
MFJ-1620T	20M	$19.95
MFJ-1617T	17M	$16.95
MFJ-1615T	15M	$16.95
MFJ-1610T	10M	$17.95
MFJ-1606T	6M	$17.95
MFJ-348T	Trunk/Hatchback Mount for MFJ-1600 Series	$42.95

2M/70cm Mobile Antennas

MFJ-1722	UltraLite Magnet Mount, BNC, 20"	$19.95
MFJ-1722S	UltraLite Magnet Mount, SMA, 20"	$19.95
MFJ-1734	Glass Mount, with Coax, 26"	$44.95
MFJ-1724B	Magnet Mount, BNC HT Adapter, 26"	$24.95
MFJ-1412B	200 Watts, Black Finish, 40"	$29.95
MFJ-1414	200 Watts, 58.5"	$19.95
MFJ-1422	150 Watts, 41.5"	$34.95
MFJ-1422B	150 Watts, Black Finish, 41.5"	$34.95
MFJ-1432	150 Watts, 62.5"	$49.95
MFJ-1432B	150 Watts, 62.5"	$49.95
MFJ-1402	RuffRider, Short-Style	$29.95

MFJ-1722S

Mobile Antennas from MFJ

MFJ-1723	1.25M Mobile Antenna, Magnet Mount, SO-239 and BNC, 22.5"	$39.95
MFJ-1721	2M Mobile Antenna, UltraLite Magnet Mount with Coax, 20"	$15.95
MFJ-1738	2M Mobile Antenna, Glass Mount, SlimLine Radiator, 27"	$34.95
MFJ-1728B	6M/2M Mobile Antenna, Magnet Mount, BNC HT Adapter	$29.95

DMN-RH77CA
DMN-RHF40

HT Antennas

The rubber duckie antenna packaged with your HT may be keeping your handheld from operating at its full potential. Knowing this, Diamond Antenna brings you dual and triple band antennas that offer better performance. As proof, Diamond rates its antennas against the original HT manufacturer's antenna to show you a relative gain improvement over your HT's (or scanner's) stock performance.

Whether you want a simple replacement for a broken HT antenna or you are looking for significantly improved reception, Diamond Antennas has a solution.

Part Number	Description	Length	Gain	Price
DMN-RH77CA	Dual-Band, Flexible, BNC Male, 10 W, Extended Receive to 900 MHz	15"	6 dB	$22.99
DMN-RHF40	Dual-Band, Flexible, BNC Male, 10 W, Extended Receive to 900 MHz	16"	6 dB	$27.99
DMN-SRH519	Dual-Band, Flexible, SMA Male	7.75"	3 dB	$26.99
DMN-SRH77CA	Dual-Band, Flexible, SMA Male, 10 W, High Gain & Extended Receive to 900 MHz	15"	6 dB	$22.99
DMN-SRJ77CA	Dual-Band, Flexible, SMA Female, 10 W, Extended Receive to 900 MHz	15"	6 dB	$24.99
DMN-SRHF40	Dual-Band, Super-Flexible, SMA Male, 10 W, Extended Receive to 900 MHz	16"	6 dB	$26.99
DMN-SRH320A	Tri-Band, Flexible, SMA Male, 10 W Power Rating	13.75"	4 dB	$46.99
DMN-SRH940	Tri-Band, Flexible, SMA Male, 10 W Power Rating	18"	2.1 dB	$39.99
DMN-SRH789	Dual-Band, Scanner Antenna, Telescopic, SMA Male, 10 W, 85-300 MHz and 300-1100 MHz	31.7"	—	$32.99

DUOSAT Handheld Portable Satellite Antenna

EAntenna's dual band DUOSAT antenna has been designed for effective handheld portable satellite operation. Weighing only 800 grams, it features 3 LFA elements in VHF and 5 LFA elements in UHF, low noise, and 144-146 MHz (VHF)/432-438 MHz (UHF). Made from sturdy aluminum with stainless steel fittings, the DUOSAT closed loop LFA antenna has been precision-engineered to deliver maximum gain and efficiency. Duplexer not included.

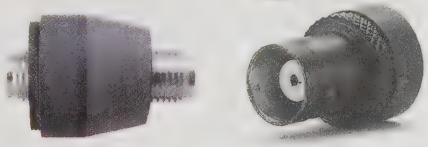
EAN-R2010254 VHF/UHF LFA Yagi, DUOSAT Antenna $169.99

Maldol

MLD-MH-209

Part Number	Description	Length	Price
MLD-NS-146	2M HT Antenna, BNC Male Connector	4"	$14.99
MLD-MH-209	2M/70cm HT Antenna, BNC Male Connector	3"	$19.99
MLD-MH-209SMA	2M/70cm HT Antenna, SMA Male Connector	3"	$23.99

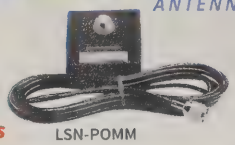
Coaxial Adapters


DMN-SMAJ-SMAJ DMN-BNCJ-SMAP

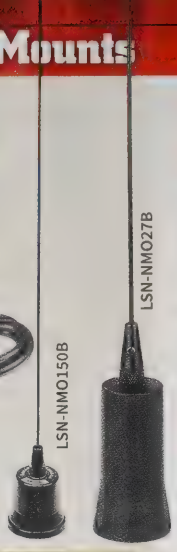
Upgrading your HT with a new antenna may require an adapter. Diamond Antennas comes through with a line of adapters well suited to handheld use. DX Engineering carries a wide range of adapters for practically every Ham Radio application, type keyword "Adapter" into the search box at DXEngineering.com to see more.

Part Number	HT Connector	Antenna Connector	Price
DMN-BNCJ-SMAP	SMA Male	BNC Female	$9.99
DMN-BNCP-SMAJ	BNC Male	SMA Female	$9.99
DMN-SMAJ-SMAJ	SMA Female	SMA Female	$9.99

Pulse Electronics / LARSEN ANTENNAS


LSN-POMM

LSN-NMOMMRPL



VHF/UHF Mobile Antennas and Mounts

Larsen built its reputation for quality by supplying the commercial telecommunications sector with high performance and ultra-reliable radio antennas. You can expect those same traits in Larsen's Amateur Radio offerings. These mobile antennas are available in a wide range of mounting, gain, height and connector configurations. Larsen recommends installing the antennas with genuine Larsen mounts, listed below. If you don't see the setup you're looking for, contact us and we'll find it for you.

Part Number	Band(s)	Gain	Height	Base	Price
LSN-NMO27C	10/11M	2 dBi	52.5"	Stainless Whip, NMO Mount	$50.99
LSN-NMO27B	10/11M	2 dBi	52.5"	Black Whip, NMO Mount	$53.99
LSN-KG144UDPL	2M	2 dBi	48"	Glass Mount, 14' of RG-58, PL-259	$114.99
LSN-NMO150B	2M	5.1 dBi	51.5"	Black Whip, NMO Mount	$41.99
LSN-NMO150C	2M	5.1 dBi	51.5"	Stainless Whip, NMO Mount	$36.99
LSN-KG2-70CXPL	2M 70cm	2 dBi 4 dBi	32.8"	Glass Mount, 14' of RG-58, PL-259	$145.99
LSN-MM2-70PL	2M 70cm	2 dBi 4 dBi	32.8"	Magnet Mount, 12' of RG-58, PL-259	$70.99
LSN-NMO2-70B	2M 70cm	3.8 dBi 5.2 dBi	34.5"	Black Whip, NMO Mount	$71.99
LSN-NMO2-70SH	2M 70cm	2.1 dBi 4.0 dBi	19"	Stainless Whip, NMO Mount	$55.99
LSN-NMO220B	1.25M	5.2 dBi	30"	Black Whip, NMO Mount	$47.99
LSN-NMO220C	1.25M	5.2 dBi	30"	Stainless Whip, NMO Mount	$44.99

Larsen Mounts and Replacement Parts		
LSN-NMOK	NMO Mount, 17' of RG-58, PL-259	$25.99
LSN-NMOKHFCXPL	HF NMO Mount, 17' of RG-58, PL-259	$30.99
LSN-NMOMMPL	Square NMO Magnet Mount, 12' of RG-58, PL-259	$61.99
LSN-NMOMMRPL	Round NMO Magnet Mount, 12' of RG-58, PL-259	$46.99
LSN-NMOTLP	NMO Trunk Lid Mount, 17' of RG-58, PL-259	$51.99
LSN-POMM	Square SO-239 Magnet Mount, 12' of RG-58, PL-259	$61.99
LSN-RGNMOANT	3 Replacement Gaskets for NMO Coil/Base Mount	$7.29
LSN-NMOCAPB	Rain Cap for NMO Mount	$7.29
LSN-KGREINSTALL	Glass Mount Re-installation Kit	$15.99

HUSTLER

Hustler Standard and Super Resonators

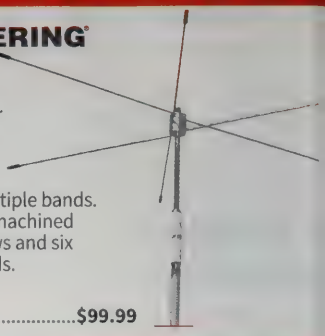
Individual Hustler Resonators are available for 80, 75, 40, 30, 20, 17, 15, 12 and 10 meters. Use these resonators with Hustler's mounts, mobile masts, and other accessories to build a custom mobile antenna. Use DX Engineering Hot Rodz® capacity hats and other accessories with these resonators to improve antenna efficiency. Find more Hustler Resonator options at DXEngineering.com.

Part Number	Band	Power Handling (PEP)	Bandwidth at 2:1 SWR	Price
HSR-RM-80	80M	400 W	25-30 kHz	$35.99
HSR-RM-80S	80M	1,000 W	50-60 kHz	$68.99
HSR-RM-75	75M	400 W	50-60 kHz	$35.99
HSR-RM-75S	75M	1,000 W	50-60 kHz	$68.99
HSR-RM-40	40M	400 W	40-50 kHz	$32.99
HSR-RM-40S	40M	1,000 W	50-80 kHz	$51.99
HSR-RM-30	30M	400 W	50-60 kHz	$32.99
HSR-RM-20	20M	400 W	80-100 kHz	$27.99
HSR-RM-17	17M	400 W	120-150 kHz	$27.99
HSR-RM-15	15M	400 W	100-150 kHz	$21.99
HSR-RM-12	12M	400 W	90-120 kHz	$21.99
HSR-RM-10	10M	400 W	150-250 kHz	$21.99

Replacement Parts for Hustler Resonators		
HSR-49-04-40S	Replacement Whip for RM-40S	$6.99
HSR-49-04-80S	Replacement Whip/Corona Ball for RM-75S/80S	$10.99

DX ENGINEERING

Hot Rodz® Capacity Hat for Hustler Mobile Antennas



This fully adjustable system attaches directly to your Hustler HF antenna. Hot Rodz improves efficiency, allowing the use of a smaller loading coil for a given frequency band. Other benefits include wider bandwidth and the ability to use a single coil on multiple bands. The Hot Rodz Capacity Hat comes with a precision-machined 6061-T6 aluminum hub with stainless steel set screws and six each of 6 inch, 12 inch and 24 inch stainless steel rods.

DXE-HR-1P Hot Rodz Capacity Hat for Hustler Mobile Antennas $99.99

Hot Rodz® Capacity Hat for Screwdriver Antennas

This fully adjustable system attaches directly to any screwdriver antenna. Hot Rodz allows you to remove the long whip from your antenna while increasing efficiency, so you can use less coil for any given frequency. The Hot Rodz Capacity Hat comes with a 22 inch tall mast, and six each of the 6 inch, 12 inch and 24 inch stainless steel rods.

DXE-HR-2P Hot Rodz Capacity Hat for Screwdriver Antennas $109.99

Hot Rodz® Capacity Hat Components

Increase the efficiency of your own shortened antenna by building your own Hot Rodz Capacity Hat system. Visit DXEngineering.com for complete details.

DXE-HRHUB-1P	Hot Rodz Hub, Smooth Bore with Set Screws	$29.99
DXE-HRHUB-2P	Hot Rodz Hub, Threaded Bore	$32.99
DXE-RODZ-48P	Hot Rodz 48" Stainless Steel Rods	$31.99
DXE-RODZ-36P	Hot Rodz 36" Stainless Steel Rods	$29.99
DXE-RODZ-60P	Hot Rodz 60" Stainless Steel Rods	$34.99
DXE-RODZ-72P	Hot Rodz 72" Stainless Steel Rods	$35.99

DX ENGINEERING

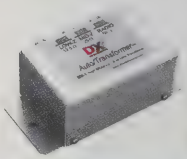
Mobile Whip, Coupler and Masts

DX Engineering's WP-102 is the classic 102" whip, perfect for 10 meter operation. Hustler also offers two mast options, a 54" mast with a handy fold-over feature and a 22" non-folding option. Both Hustler masts and the DX Engineering whip feature a 3/8"-24 stud mount. For easy installation and removal of masts and mast sections, check out Hustler's Quick-Disconnect Coupler.

Use the HSR-QD-2 Quick Disconnect to quickly disconnect one mast from another. The HSR-MO-2 Folding Mast allows quick change of Hustler resonators.

DXE-WP-102	Mobile Whip Antenna, Tapered, 1-Piece, Stainless Steel, 8.50' Length, 3/8"-24 Stud	$24.99
HSR-MO-2	Hustler 54" Folding Mast for Fender/Bumper Mount	$43.99
HSR-MO-4	Hustler Non-Folding Mast, 22" Total Length	$28.99
HSR-QD-2	Hustler Stainless Steel Quick Disconnect, 3/8"-24	$29.99

Dual Impedance Antenna Transformer



This unbalanced to unbalanced (UNUN) impedance transformer matches a 50 Ω to 25 Ω or 12.5 Ω connection. Use it to get a better match between a feedline and a typical mobile antenna. It works well with Hot Rodz® Capacity Hat-equipped antennas.

DXE-MM-1 Dual Impedance Antenna Transformer $119.99

DX ENGINEERING

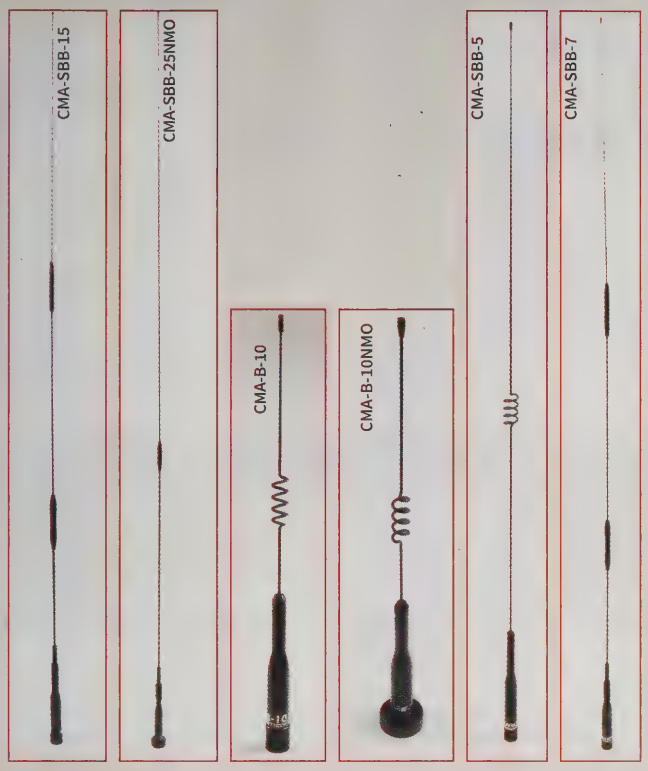
DX Engineering Go-Kits

Field Day gives Amateur Radio operators the chance to work under adverse conditions and for an extended time, testing their acumen and stamina, while preparing them to serve when a true crisis hits.

DX Engineering offers one Two Meter Field Day Go-Kit combo and two HF Plus Field Day Go-Kit Combos that can help outfit your EMCOMM station and make sure you're ready for the next disaster or RACES/ARES® event.

DX Engineering's HF Plus Go-Kits come with a compact HF transceiver, 200 watt automatic antenna tuner, 50 watt dual band transceiver, communications speaker, dual band handheld transceiver, speaker mic, 30 amp power supply, 4-outlet DC panel, a combined battery backup switch unit and 40A smart charger (for transceiver power, battery not included), a sturdy wheeled carrying case and pocket repeater directory. See DXEngineering.com!

COMET™



Mobile Antennas

Comet lets you take your show on the road with a vast selection of effective, reliable and durable mobile antennas. There are options for every common band, plus dual-band and tri-band antennas too. Comet also gives you several different antenna styles to ensure the installation in your vehicle stays clean and unobtrusive.

In addition to use in your vehicle, these mobile antennas are also great for Field Day or EMCOMM. Their rugged durability makes them portable, even in less-than-ideal conditions. Take a look at the chart; it is easy to find one that's perfect for your needs.

You can get all the specs at DXEngineering.com.

Tri-Band

Part Number	Description	Height	Band(s)	Gain	Price
CMA-SBB-15	Tri-Band Mobile Antenna, Black, Fold-Over, UHF Base	61"	6 Meter 2 Meter 70cm	2.4 dBi 4.5 dBi 7.2 dBi	**$89.99**
CMA-SBB-224	Tri-Band Mobile Antenna, Black, Fold-Over, UHF Base	36"	2 Meter 1.25 Meter 70cm	2.1 dBi 3.5 dBi 6 dBi	**$79.99**
CMA-SBB-224NMO	Tri-Band Mobile Antenna, Black, Fold-Over, NMO Base	36"	2 Meter 1.25 Meter 70cm	2.1 dBi 3.5 dBi 6 dBi	**$79.99**

Monoband

Part Number	Description	Height	Band	Gain	Price
CMA-SBB-123	Monoband Mobile Antenna Black, Type N Mount	24"	23cm	7.2 dBi	**$54.99**
CMA-SBB-25	Monoband Mobile Antenna Black, UHF Mount	57"	2 Meter	4.1 dBi	**$52.99**
CMA-SBB-25NMO	Monoband Mobile Antenna Black, NMO Mount	57"	2 Meter	4.1 dBi	**$52.99**

Dual-Band

Part Number	Description	Height	Band(s)	Gain	Price
CMA-B-10	Dual-Band Mobile Antenna Black, UHF Mount	12"	2 Meter 70cm	— 2.1 dBi	**$42.99**
CMA-B-10NMO	Dual-Band Mobile Antenna Black, NMO Mount	12"	2 Meter 70cm	— 2.1 dBi	**$42.99**
CMA-SBB-1NMO	Dual-Band Mobile Antenna Black, NMO Mount	16"	2 Meter 70cm	1.5 dBi 2.1 dBi	**$42.99**
CMA-SBB-2	Dual-Band Mobile Antenna Black, UHF Mount	18"	2 Meter 70cm	2.1 dBi 3.8 dBi	**$42.99**
CMA-SBB-2NMO	Dual-Band Mobile Antenna Black, NMO Mount	18"	2 Meter 70cm	2.1 dBi 3.8 dBi	**$42.99**
CMA-SS-460SBNMO	Dual-Band Mobile Antenna Black, NMO Spring Mount	18"	2 Meter 70cm	2.1 dBi 3.8 dBi	**$43.99**
CMA-M-24M	Dual-Band Mobile Antenna Magnet Mount, 12' Coax, PL-259	19.5"	2 Meter 70cm	1.7 dBi 4.1 dBi	**$42.99**
CMA-M-24S	Dual-Band Mobile Antenna Mag Mount, 12' Coax, Male SMA	19.5"	2 Meter 70cm	1.7 dBi 4.1 dBi	**$42.99**
CMA-SS-680SB	Dual-Band Mobile Antenna Black, UHF Spring Mount	27"	2 Meter 70cm	2.1 dBi 4.1 dBi	**$46.99**
CMA-SS-680SBNMO	Dual-Band Mobile Antenna Black, NMO Spring Mount	27"	2 Meter 70cm	2.1 dBi 4.1 dBi	**$46.99**
CMA-SBB-5	Dual-Band Mobile Antenna Black, Fold-Over, UHF Mount	38"	2 Meter 70cm	3 dBi 5.5 dBi	**$58.99**
CMA-SBB-5NMO	Dual-Band Mobile Antenna Black, Fold-Over, NMO Mount	38"	2 Meter 70cm	3 dBi 5.5 dBi	**$58.99**
CMA-CSB-750A	Dual-Band Mobile Antenna Fold-Over, UHF Mount	42"	2 Meter 70cm	3.6 dBi 6.1 dBi	**$75.99**
CMA-SBB-7	Dual-Band Mobile Antenna, Black, Fold-Over, UHF Mount	55"	2 Meter 70cm	4.5 dBi 7.2 dBi	**$79.99**
CMA-SBB-7NMO	Dual-Band Mobile Antenna Black, Fold-Over, NMO Mount	55"	2 Meter 70cm	4.5 dBi 7.2 dBi	**$79.99**
CMA-CSB-790A	Dual-Band Mobile Antenna Fold-Over, UHF Mount	62"	2 Meter 70cm	5.1 dBi 7.7 dBi	**$109.99**

COMET™

Multi-Band Mobile Antennas

Combine incredible frequency coverage in a rugged package, and you get these versatile antennas from Comet. You can make SWR adjustments independently and achieve SWR levels lower than a monoband antenna.

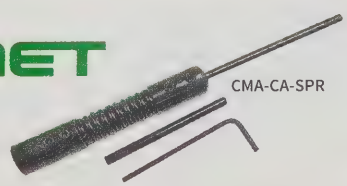
A fold-over hinge is included with both models, handy for low overhangs, and they have a PL-259 connector. Available in quad-band and six-band models, these antennas are a great option if you want extended mobile coverage without turning your vehicle's roof into an antenna farm.

CMA-UHV-4 — 10M/6M/2M/70cm Quad-Band Mobile Antenna, 54" High **$119.99**

CMA-UHV-6 — 40M/15M/10M/6M/2M/70cm Six-Band Mobile Antenna, 76" High **$169.99**

CA-2x4SR Mobile Vertical Antennas

COMET™



These antennas are built to assist search and rescue volunteers who need voice communications on the Ham, land mobile and FRS frequency ranges. With these 40" antennas you get remarkable coverage, with 3.8 dBi gain on 2M and 6.2 dBi gain on 70cm. Plus, you'll be able to transmit and receive in both bands. Made for the field, these are the ideal mobile antennas for EMCOMM.

CMA-CA-2X4SR — 2M/70cm Broadband Mobile Antenna, UHF Base **$69.99**

CMA-CA-2X4SRNMO — 2M/70cm Broadband Mobile Antenna, NMO Base **$69.99**

CMA-CA-SPR — Optional Spring Section for 2X4SR Antennas **$20.99**

Visit DXEngineering.com for the latest limited-time offers and special savings!

DIAMOND ANTENNA

Mobile Antennas

Diamond offers you an extensive line of mobile antennas, so you can easily find one suited for your exact demands. These antennas are the ideal fusion of price, quality and versatility. Whether your priority is based on gain, height, power or aesthetics, there's a Diamond Antenna that's perfect for you. Check out the chart, DXEngineering.com has additional specs to help you refine your choices.

Supergainer Antennas

If you want an effective mobile wideband antenna that offers great performance without a lot of tuning and adjustment headaches, then Diamond's Supergainer series is perfect. These wideband antennas feature 24K gold plated connector pins for excellent continuity, and the fold-over design is invaluable if you face low overhead obstructions like garages or parking decks.

DMN-SG7000A 2M/70cm Wideband Antenna, UHF, 18.5" **$69.99**

DMN-SG7500A 2M/70cm Wideband Antenna, Radial-less, UHF, 40.6" **$69.99**

DMN-SG7500NMO 2M/70cm Wideband Antenna, Radial-less, NMO, 41" **$75.99**

DMN-SG7900A 2M/70cm Wideband Antenna, Radial-less, UHF, 62.2" **$99.99**

DMN-AZ507RSP 2M/70cm SlimGainer, Radial-less, UHF, 27.5" **$46.99**

DIAMOND ANTENNA

Mobile HF Monoband Antennas

Made for miles of reliable operation, these antennas provide low SWR and no-compromise performance. They feature fold-over hinges and SO-239 mounts. The stainless steel construction means they'll handle the rigors of mobile use, while the 2-piece design makes them easy to store.

Part Number	Band	(PEP)	Height	Price
DMN-HF80CL	80M	120 W	87.5"	**$69.99**
DMN-HF40CL	40M	200 W	86.6"	**$69.99**
DMN-HF20CL	20M	200 W	86.6"	**$69.99**
DMN-HF17CL	17M	200 W	86.6"	**$69.99**
DMN-HF15CL	15M	200 W	86.6"	**$69.99**
DMN-HF10CL	10M	200 W	86.6"	**$69.99**
DMN-HF6CL	6M	250 W	86.6"	**$69.99**

DIAMOND ANTENNA

Mobile Screwdriver Antenna

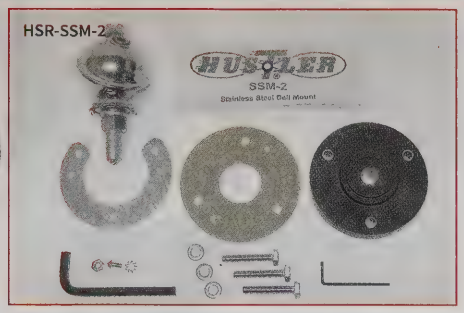
Imagine: One antenna, ALL HF bands—plus 6 meters. Available with a UHF mount or a 3/8"-24 stud mount, these antennas are your answer for a comprehensive mobile HF setup. They run off your vehicle's 12 Vdc system and allow you to move from band-to-band with the flick of a switch. The SD330 antenna also provides excellent SWR and can handle 200 watts PEP.

These antennas stand over 73 inches tall and weigh 2.5 pounds, so make sure your vehicle can handle the size. The kits include the antenna, motor, switch and wiring harness.

DMN-SD330 Mobile Screwdriver Antenna, HF Mount **$389.99**

Part Number	Description	Height	Band(s)	Gain	Price
	Monoband				
DMN-HF6CL	Mobile Antenna Fold-Over, UHF Mount	86.6"	6 Meter	2.15 dBi	**$69.99**
DMN-M285S	Mobile Antenna Trim-to-Tune, UHF Mount	50"	2 Meter	3.4 dBi	**$31.99**
DMN-M285SNMO	Mobile Antenna Trim-to-Tune, NMO Mount	50"	2 Meter	3.4 dBi	**$31.99**
DMN-NR22L	Mobile Antenna Fold-Over, UHF Mount	96.8"	2 Meter	6.5 dBi	**$64.99**
	Dual-Band				
DMN-AZ504FXH	Mobile Antenna, UHF Mount	15.5"	2 Meter 70cm	2.1 dBi	**$39.99**
DMN-AZ504SP	Mobile Antenna Spring Base, UHF Mount	15.5"	2 Meter 70cm	2.1 dBi	**$39.99**
DMN-NR72BNMO	Mobile Antenna, NMO Mount	13.8"	2 Meter 70cm	2.1 dBi	**$39.99**
DMN-MR73SMA	Mobile Antenna with Mini Mag-Mount, Coax, SMA Female	19.5"	2 Meter 70cm	2.1 dBi 3.4 dBi	**$26.99**
DMN-MR77	Mobile Antenna with Mini Mag-Mount, Coax, UHF Male	20"	2 Meter 70cm	2.1 dBi 3.4 dBi	**$37.99**
DMN-MR77SJ	Mobile Antenna with Mini Mag-Mount, Coax, SMA Female	20"	2 Meter 70cm	2.1 dBi 3.4 dBi	**$37.99**
DMN-MR77SMA	Mobile Antenna with Mini Mag-Mount, Coax, SMA Male	20"	2 Meter 70cm	2.1 dBi 3.4 dBi	**$37.99**
DMN-NR73BNMO	Mobile Antenna Radial-less, NMO Mount	33.5"	2 Meter 70cm	2.1 dBi 5.3 dBi	**$54.99**
DMN-NR770HNMO	Chrome Mobile Antenna Radial-less, NMO Mount	38.2"	2 Meter 70cm	3 dBi 5.5 dBi	**$53.99**
DMN-NR770HBNMO	Black Mobile Antenna Radial-less, NMO Mount	38.2"	2 Meter 70cm	3 dBi 5.5 dBi	**$53.99**
DMN-NR770HA	Chrome Mobile Antenna Radial-less, UHF Mount	40.2"	2 Meter 70cm	3 dBi 5.5 dBi	**$48.99**
DMN-NR770HB	Black Mobile Antenna Radial-less, UHF Mount	40.2"	2 Meter 70cm	3 dBi 5.5 dBi	**$53.99**
DMN-NR7900A	Mobile Antenna Fold-Over, UHF Mount	57"	2 Meter 70cm	3.7 dBi 6.4 dBi	**$84.99**
DMN-SG7900ANMO	Mobile Antenna Fold-Over, NMO Mount	62"	2 Meter 70cm	5 dBi 7.6 dBi	**$121.99**
	Tri-Band				
DMN-CR320A	Mobile Antenna Fold-Over, UHF Mount	37.4"	2 Meter 1.25 Meter 70cm	2.1 dBi 3.8 dBi 5.5 dBi	**$79.99**
DMN-CR320BNMO	Mobile Antenna Fold-Over, NMO Mount	37.4"	2 Meter 1.25 Meter 70cm	2.1 dBi 3.8 dBi 5.5 dBi	**$79.99**
DMN-CR627B	Mobile Antenna Fold-Over, UHF Mount	60"	6 Meter 2 Meter 70cm	2.1 dBi 4.5 dBi 7.2 dbi	**$84.99**
DMN-NR2000NA	Mobile Antenna Fold-Over, Type N Mount	39"	2 Meter 70cm 23cm	3.1 dBi 6.3 dBi 9.7 dBi	**$84.99**
	Quad-Band				
DMN-CR8900A	Mobile Antenna, for Yaesu FT-8900/8900R, SO-239, Not Recommended for Magnet Mounts	50"	10 Meter 6 Meter 2 Meter 70cm	2.1 dB 2.1 dB 2.1 dB 5.5 dB	**$99.99**

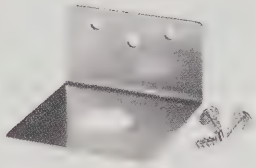
HUSTLER



Mobile Antenna Mounts

HSR-SSM-2	Heavy-Duty Stainless Steel Ball Mount, 2" Diameter	$37.99
HSR-SSM-3	Stainless Steel Spring, 3"	$37.99
HSR-L-14-144	12' RG-58/PL-259 to Lugs, Coax to Ball Mount	$12.99
HSR-VP-1	Tri-Band Adapter for HF Mobile Antenna	$10.99
HSR-QD-2	Stainless Steel Quick Disconnect, 3/8"-24	$29.99
HSR-RSS-2	Stainless Steel "Resonator" Impact Spring	$19.99
HSR-MBM	Super Magnetic Mount, 16' Coax, 3/8"-24 Antenna	$28.99

Pulse/LARSEN Electronics ANTENNAS



Flat Surface Mobile Antenna Mounts

Though they're made for securing a mobile antenna to the side of a vehicle (like a panel truck or an RV), these stainless steel mounts are also a great way to install a small vertical/mobile antenna on your home's rain gutters. They have a 3/4-inch hole that will accept LM, NMO and SO-239 mounts. Installation screws are included.

LSN-TMB34	Flat Surface Mount, Natural Finish	$7.99
LSN-TMB34B	Flat Surface Mount, Black Finish	$12.29

DIAMOND ANTENNA

Coaxial Adapter

If you're going to run a big mast or antenna on your mobile rig, chances are that it's going to have a stud mount. Make your installation go smoothly with this handy adapter that takes your SO-239 antenna mount and converts it to a 3/8"-24 stud mount. It includes male/female adapters for the stud, too.

DMN-D38-24	Coaxial Adapter	$19.99

HUSTLER

Recreational Vehicle Mount

This mount is designed for a vertical side panel or roof installation, ideal for larger vehicles. It swivels 180 degrees and will accept most flexible antennas up to 55 inches long with 3/8"-24 bases. The mount includes a grommet for panel pass-through and 17 feet of RG58/U with a PL-259 connector.

HSR-RVM	Recreational Vehicle Mount	$25.99

NCG COMPANY

Antenna Mount Adapters

Stretch your mobile antenna budget by using NCG Antenna Mount Adapters. Instead of buying a new mount for your new antenna, You can repurpose your existing mount using these adapters. Made from top quality materials, these no-compromise mounts will speed up new antenna installs.

NCG-AD-10N	Antenna Mount Adapter, Type N Female to NMO	$21.99
NCG-AD-15M	Antenna Mount Adapter, NMO to SO-239	$21.99
NCG-AD-25M	Antenna Mount Adapter, SO-239 to NMO	$15.99
NCG-AD-35M	Antenna Mount Adapter, SO-239 to 3/8"-24	$17.99

Bushcomm HF Antenna Systems

Highlander 8 Tapped Mobile Whip Antenna

Bushcomm does more than make wire antennas, its Highlander 8 Mobile Whip is an 80-6M antenna that can handle up to 250 watts PEP. Carefully coiled antenna wire keeps the fiberglass mast's height under six feet. Want to change bands? Simply plug into a different tap. Tuning is possible by adjusting the antenna's variable length tip. It has a 3/8"-24 stud; a heavy duty mount is recommended.

BCM-BU01180	Highlander 8 Tapped Mobile Whip Antenna	$349.99

DIAMOND ANTENNA

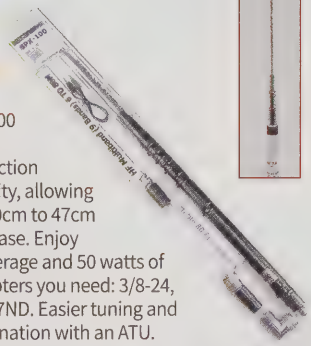
HF/VHF/UHF Mobile Vertical Antenna

For the mobile operator who doesn't want to be confined to one band, Diamond offers you this versatile solution. It gets you on the 10 meter, 6 meter, 2 meter and 70cm bands, with 2.1 dBi gain on HF/VHF and 5.5 dBi gain on UHF. It will handle 200 watts (PEP) on UHF/VHF and 125 watts on HF. You'll also get impressive bandwidth, depending on your grounded mount's location. At 50 inches high, this antenna is not recommended for a magnet mount.

You can add optional loading coils for even more HF coverage.

DMN-HV7A	HF/VHF/UHF Mobile Vertical Antenna	$109.99
DMN-HVC7	40 Meter Loading Coil for HV7A	$44.99
DMN-HVC14	20 Meter Loading Coil for HV7A	$37.99
DMN-HVC18	17 Meter Loading Coil for HV7A	$37.99
DMN-HVC21	15 Meter Loading Coil for HV7A	$37.99

MOONRAKER



SPX-100 9-Band Plug-N-Go Antenna

Whether at home, on the road, or in the great outdoors, Moonraker's portable SPX-100 antenna delivers the goods no matter what the application. The antenna's unique 10-section telescopic whip gives you incredible versatility, allowing you to adjust from a maximum length of 150cm to 47cm (59" to 18.5") for easy transport in your suitcase. Enjoy 80/40/30/20/17/15/12/10/6 meter band coverage and 50 watts of power. The antenna comes with all the adapters you need: 3/8-24, PL-259 and even a BNC for your Yaesu FT-817ND. Easier tuning and wider bandwidth may be achieved in combination with an ATU.

MKR-12-101	9 Band Plug-N-Go Antenna	$72.99

MOONRAKER

New!

MRM-100S Dual Band Micro-Mag Antenna

For lightning-quick HT operation on the 2M and 70cm bands, Moonraker's magnetic-mounted 19 inch whip antenna gets the job done. It comes with a 13' RG-174 cable terminated to an SMA male for fast connection to almost any modern handheld transceiver. Just pack the MRM-100S Dual Band Micro-Mag Antenna in your car or Go-Kit and you're ready for emergency mobile operation when the need calls.

MKR-12-030	2M/70cm Micro-Mag Antenna	$32.99

WEST MOUNTAIN RADIO

TARGETuner Screwdriver Antenna Controller

This clever bit of gear monitors your antenna position and automatically adapts to vehicle travel, the environment and SWR to prevent detuning and ensure optimum performance. It also delivers a digital readout of your radio's frequency and SWR level, plus gives you manual control of your antenna. The TARGETuner can even alert you if the SWR reaches a defined threshold.

This controller works with systems that have both a motor control and frequency sensor (for band matching). It includes the display, control unit and hookup cables. A mounting kit is available separately. Find more details on the TARGETuner at DXEngineering.com.

WMT-58425-1473	TARGETuner Screwdriver Antenna Controller	$234.95
WMT-58426-1539	TARGETuner Mounting Brackets	$12.95

COMET™

CMA-SD2ANTNCG

CMA-DG2ANTPF

No-Hole Fender Brackets

Mount your mobile antenna without damaging your truck or SUV's paint. The brackets use the existing fender bolts, so there are no holes to drill and no set-screws that could scratch your vehicle's finish. The brackets have a 3/4" hole that works with most NMO and PL-259 connector assemblies. Don't see your vehicle listed? Visit DXEngineering.com to see more brackets.

Part Number	Vehicle Applications	Price
Chevrolet		
CMA-SUANTPF	2000-02 Silverado 2000-05 Suburban	$24.99
CMA-AVANTPF	2003-07 Silverado 2004-06 Avalanche	$24.99
CMA-CVANTPF	2007-13 Silverado, Avalanche 2007-14 Suburban, Tahoe	$24.99
CMA-CV2ANTNCG	2014-16 Silverado	$24.99
CMA-SU2ANTNCG	2015-16 Suburban, Tahoe	$24.99
Dodge		
CMA-DGANTPF	2002-08 Ram 1500-3500	$24.99
CMA-DG2ANTPF	2009-16 Ram 1500-5500	$24.99
Ford		
CMA-FOANTPF	2005-08 F-150	$24.99
CMA-FO2ANTPF	2009-14 F-150, Expedition	$24.99
CMA-FO3ANTNCG	2015-16 F-150	$24.99
CMA-SDANTPF	2005-10 F-Series Super Duty	$24.99
CMA-SD2ANTNCG	2011-16 F-Series Super Duty	$24.99
CMA-DGANTPF	2011-14 Explorer	$24.99
CMA-EXANTNCG	2015-16 Explorer	$24.99
CMA-FO3ANTNCG-R	2015-18 F-150	$24.99
CMA-FO3ANTNCG-R	2017-18 Super Duty	$24.99
CMA-FO3ANTNCG-R	2018 Expedition	$24.99
GMC		
CMA-SUANTPF	2001-06 Sierra	$24.99
CMA-CVANTPF	2007-13 Sierra 1500, Yukon, Denali 2007-14 Sierra 2500, 3500	$24.99
CMA-CV2ANTNCG	2014-16 Sierra 1500 2015-16 Sierra 2500, 3500	$24.99
CMA-SU2ANTNCG	2015-16 Yukon, Denali	$24.99
Toyota		
CMA-TYANTPF	2007-12 Tundra	$24.99

Mounting - There are pros and cons of every antenna mounting location. A glass mount can be removed without leaving a trace, but may compromise antenna gain. Drilling a hole in your roof is the best call for performance, but then…you'll have a hole in your roof. In fact, simply moving your antenna from the front to the back of your vehicle can drastically affect your signal.

Don't hesitate to call us for advice—we have mounting solutions for any installation.

COMET™

Mobile Antenna Mounts

You've invested a lot of time and money in your mobile antenna, now make sure it stays put with a genuine Comet Antenna Mount. Comet gives you several mounting options and many require no drilling, so there are no unsightly holes to cover up. Whatever your antenna size may be, there's a quality mount available for it. Some mounts come in kit form, complete with cable assemblies and connectors. Others allow you the freedom to choose how to connect your antenna. Drive safe and operate freely, knowing your antenna is secured right where it's supposed to be, by choosing a Comet Antenna Mount.

Part Number	Description	Base Type	Includes	Price
CMA-3D4M	Standard Mobile Lip-Mount Cable Assembly	UHF (SO-239)	Mount, 13' of Coax, O-Ring, SO-239/PL-259 Cable Connectors	$29.99
CMA-3D4N	Standard Mobile Lip-Mount Cable Assembly	Type N	Mount, 13' of Coax, O-Ring, SO-239/PL-259 Cable Connectors	$32.99
CMA-3D5M	Standard Mobile Lip-Mount Cable Assembly	UHF (SO-239)	Mount, 16.5' of Coax, O-Ring, SO-239/PL-259 Cable Connectors	$29.99
CMA-5D4N	Mobile Mount Cable Assembly	Type N	Mount, 13' of Coax, O-Ring, Type N Cable Connectors	$34.99
CMA-CK-3-3-8-24	Deluxe Mobile Mount Cable Assembly	3/8"-24 Receptacle	Mount, 16' of Coax, O-Ring, SO-239/PL-259 Cable Connectors	$42.99
CMA-CK-3M	Deluxe Mobile Mount Cable Assembly	UHF (SO-239)	Mount, 9.75' of Coax, O-Ring, SO-239/PL-259 Cable Connectors	$35.99
CMA-CK-3M5	Deluxe Mobile Mount Cable Assembly	UHF (SO-239)	Mount, 16' of Coax, O-Ring, SO-239/PL-259 Cable Connectors	$42.99
CMA-CK-3NMO	Deluxe Mobile Mount Cable Assembly	NMO	Mount, 9.75' of Coax, O-Ring, NMO/PL-259 Cable Connectors	$42.99
CMA-CK-5N	Deluxe Mobile Mount Cable Assembly (for RS-730)	Type N	Mount, 16' of Coax, O-Ring, Type N Cable Connectors	$49.99
CMA-CM-5M	Mobile Antenna Magnet Mount	UHF (SO-239)	Magnet Mount, Base, 13' of Coax, PL-259 Connectors, Rubber Boot	$24.99
CMA-CP-5M	Mobile Antenna Adjustable Lip Mount	UHF (SO-239)	Mount, 16' of Coax, SO-239 and PL-259 Cable Connectors	$69.99
CMA-CP-5NMO	Mobile Antenna Adjustable Lip Mount	NMO	Mount, 16' of Coax, NMO and PL-259 Cable Connectors	$69.99
CMA-CR-5M	Standard Cable Assembly	UHF (SO-239)	Mount, 16' of Coax, SO-239 and PL-259 Cable Connectors	$21.99
CMA-HD-5-3-8-24	Mobile Antenna Adjustable Lip Mount	3/8"-24 Receptacle	Mount, 16' of Coax, Rubber Pad, Set Screws, PL-259 Connector	$79.99
CMA-HD-5M	Mobile Antenna Adjustable Lip Mount	UHF (SO-239)	RS-840 Bracket, CK-3M5 Cable Assembly	$79.99
CMA-LD-5M	Mobile Antenna Small Adjustable Lip Mount	UHF (SO-239)	Mount, 16' of Coax, Rain Cap, SO-239/PL-259 Cable Connectors	$59.99
CMA-MG-4N	Mobile Antenna Magnet Mount (2.5 GHz)	Type N	Magnet Mount, 13' of Coax, Rain Cap, Type N Cable Connector	$54.99
CMA-RS-660U	Mobile Antenna Adjustable Roof Rack Mount	—	Mount (SO-239 Connector Required)	$37.99
CMA-RS-520	Mobile Antenna Light-Duty Adjustable Lip Mount	—	Mount (SO-239 Connector Required)	$29.99
CMA-RS-720	Mobile Antenna Med.-Duty Adjustable Lip Mount	—	Mount (SO-239 Connector Required)	$29.99
CMA-RS-720NMO	Mobile Antenna Med.-Duty Adjustable Lip Mount	—	Mount (NMO Connector Required)	$29.99
CMA-RS-730	Mobile Antenna Heavy-Duty Adjustable Lip Mount	—	Mount (Connector Required)	$32.99
CMA-RS-840	Mobile Antenna Heavy-Duty Adjustable Lip Mount	—	Mount (Connector Required)	$39.99

DIAMOND ANTENNA

Magnet Mounts

DMN-K702M

A magnet mount that stays put! These deluxe mounts feature powerful magnets housed in a heavy four to six inch diameter base. The deluxe model can even hold antennas up to 50 inches tall. If you need a magnet mount that you can set-and-forget, Diamond gives you plenty of choices.

DMN-DPK4NM-N	Magnet Mount, 13' Coax, Type N, for 45" Antenna Max	$54.99
DMN-K702M	Magnet Mount, Deluxe Low-Profile, PL-259, for 50" Antenna Max	$49.99
DMN-SPM35	Magnet Mount, 13' Coax, PL-259, for 45" Antenna Max	$44.99
DMN-SPMNMO	Magnet Mount, 13' Coax, NMO, for 45" Antenna Max	$49.99

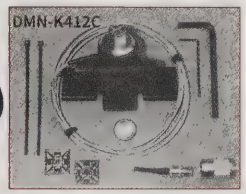
CRM Mirror and Luggage Rack Mount

It's a beautifully simple right-right angle bracket with a U-bolt that creates a proven, secure attachment point for mirrors, racks or anything made from tubing up to 1 1/16" OD The mount is stainless steel to withstand years of outdoor abuse. It has a 5/8" hole for your UHF connector.

DMN-CRM	CRM Mirror and Luggage Rack Mount	$16.99

K412 Series Trunk and Hatchback Mounts

DMN-K412SNMO


DMN-K412C

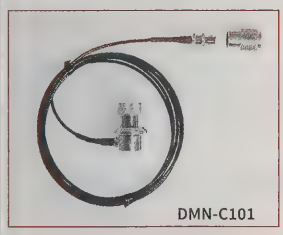
These mounts are similar to Diamond's K400 series, but are tailored for medium-duty applications. K412 Series Trunk and Hatchback mounts are perfect for medium-sized HF antennas under 45 inches.

DMN-K412C	K412 Mount, 6.6' Coax, SO-239 Base/Mini UHF Cable Connector	$59.99
DMN-K412CNMO	K412 Mount, 6.6' Coax, NMO Base/Mini UHF Cable Connector	$59.99
DMN-K412S	K412 Mount, 13.6' Coax, SO-239 Base/SMA Male Cable Connector	$69.99
DMN-K412SNMO	K412 Mount, 13.6' Coax, NMO Base/SMA Male Cable Connector	$69.99

Weather Cap

Keep your exposed SO-239 connector free of corrosion and debris, and ensure that your antenna mount is always ready when you need it. It's great to use when you remove your antenna before going through a car wash.

DMN-31005	Weather Cap	$3.99


DMN-C101

DMN-C213SMA

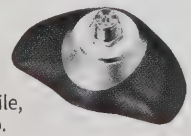
DMN-C110

Hole Mount Cable Assemblies

Whether used as stand-alone antenna mounts or cable extensions, these assemblies will help you create a clean installation. They feature slim 1/8 inch diameter PTFE coax and mini UHF connectors, allowing you to easily thread these mounts through holes, between panels and around corners.

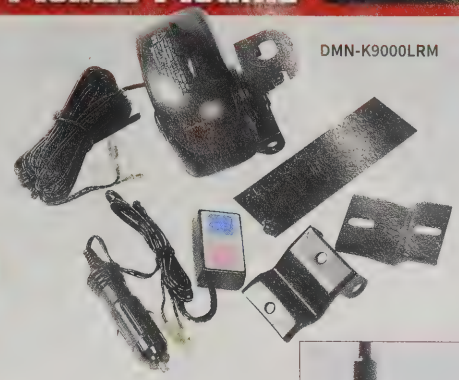
DMN-C101	6.5' Coax, SO-239 Base/Mini UHF Cable Connector	$37.99
DMN-C10138CKIT	6.5' Coax, 3/8"-24 Base/Mini UHF Cable Connector	$44.99
DMN-C101NMO	6.5' Coax, NMO/Mini UHF Cable Connector	$37.99
DMN-C211	6.5' Coax, SO-239/Mini UHF Cable Connector, C110 Ext. Cable	$49.99
DMN-C213SMA	13.6' Coax, SO-239/SMA Male Cable Connector	$44.99
DMN-C213SNMO	13.6' Coax, NMO/SMA Male Cable Connector	$45.99
DMN-C110	10' Extension Cable, Mini UHF Male/Female Connectors	$19.99

Heavy-Duty Trunk Mounts


DMN-K600M

If you're running a high-gain VHF/UHF mobile antenna, Heavy Duty Trunk Mounts are perfect for your setup. With an adjustable range of 0-9 degrees, a strong screw-type installation and weatherproof construction, these are versatile, worry-free mounts. The aerodynamic styling looks great, too.

DMN-K600M	Mount, 10' Coax, SO-239 Base/PL-259 Cable Connector	$59.99
DMN-K600S	Mount, 10' Coax, SO-239 Base/SMA Male Cable Connector;	$62.99


DMN-K9000LRM

DIAMOND ANTENNA

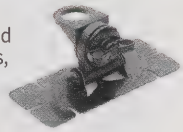
K9000 Series Mobile Motor Drive Mounts

DMN-K9000LRMO

Raise and lower your dual-band mobile antenna with the touch of a button. A 12V cigarette lighter plug-powered manual switch allows you to tilt your antenna up and down—perfect for garages or low overpasses. A 20 foot long DC power cord is included to complete your setup. These mounts are compatible with antennas that are under 45 inches tall, and don't require a ground. They are designed to mount securely to your luggage rack/tubing or trunk/hatch lip.

DMN-K9000LRM	Mobile Drive Mount for Small, Tubular Luggage Rack	$119.99
DMN-K9000LRMO	Mobile Drive Mount for Large, Oversize Luggage Rack	$119.99
DMN-K9000TM	Mobile Drive Mount for Trunk Lid or Hatchback	$119.99

HRKS Adhesive Backed Antenna Mount



If you don't want to drill a hole or put a mag-mount on your car, Diamond offers an adhesive backed antenna mount that securely adheres to glass, steel, fiberglass—virtually any smooth, flat surface. When it's time to remove the mount, just use some fishing line to "saw" it off without a trace. This two-piece adjustable mount has an SO-239 antenna base, 13.6 feet of coax ending in an SMA male connector and an SMA female to PL-259 adapter.

DMN-HRKS	Adhesive Backed Antenna Mount	$69.99

K400 Series Trunk and Hatchback Mounts

DMN-K400

DMN-K400S

These K400 Series deluxe heavy-duty mounts are ideal for large VHF/UHF and medium-sized HF antennas—including many popular screwdriver antennas. The strong mounts are adjustable on two axis. Install them vertically or horizontally without drilling any holes in your vehicle's body.

DMN-K400	Trunk/Hatchback Mount Only	$39.99
K400 Mounts		
DMN-K400-3-8C	6.5' Coax, 3/8"-24 Base/Mini UHF Cable Connector	$73.99
DMN-K400C	6.5' Coax, SO-239 Base/Mini UHF Cable Connector	$73.99
DMN-K400CNMO	6.5' Coax, NMO Base/Mini UHF Cable Connector	$73.99
DMN-K400S	13.5' Coax, SO-239 Base/SMA Male Cable Connector	$79.99
DMN-K400SNMO	13.5' Coax, NMO Base/SMA Male Cable Connector	$79.99
DMN-K400-3-8C2	13.5' Coax, 3/8"-24 Base/Mini UHF Cable Connector	$79.99

K515, K540 and K550 Series Luggage Rack Mounts

DMN-K540

DMN-K515SNMO

DMN-K550KM

Ideal for your vehicle's luggage rack, these mounts clamp securely for a stable connection. The K540 Series can even clamp to your long mirror arm or any 1/2 to 7/8 inch tubing. Every model includes a handy fold-down feature, so you can lower your antenna for garages and parking decks. All three series are well suited for lightweight and medium-sized antennas. Diamond's K515 Series is recommended for antennas under 50 inches tall, and the K550 Series is great for antennas under 45 inches.

DMN-K515S	K515 Mount, 13.6' Coax, SO-239 Base/SMA Male Cable Connector	$69.99
DMN-K515SNMO	K515 Mount, 13.6' Coax, NMO Base/SMA Male Cable Connector	$69.99
DMN-K540	Luggage Rack Mount	$36.99
DMN-K540KM	K540 Mount, 13' Coax, SO-239 Base/PL-259 Cable Connector	$59.99
DMN-K550	Luggage Rack Mount	$44.99
DMN-K550KM	K550 Mount, 13' Coax, SO-239 Base/PL-259 Cable Connector	$69.99

DX ENGINEERING

Utility Enclosure Package

The Utility Enclosure Package is a high-impact thermoplastic enclosure ideal for outdoor mounting of all types of lightning protectors or other equipment. Its weathertight design protects the components from rain and direct water spray. It resists degradation from environmental contaminants, chemical fertilizers and insecticide sprays that can ruin metallic housings.

The thermoplastic housing and wire entrance grommet material are fire retardant and UV stabilized. The enclosure can be painted with latex or oil base paints if needed to blend it in with its location. The kit includes an aluminum mounting plate for attaching your lightning protectors and ground strap.

Mounting hardware, mounting plate and four weathertight large feed-through grommets for RG-213 and LMR-400 sized cable are included.
Optional feed-through grommets for smaller cables are available.

DXE-UE-2P	Utility Enclosure Package, 13" W x 14" H x 4" D	$58.99
DXE-CFT-1P	Large Cable Feed-Through Grommets, Pack of 6	$15.99
DXE-CFT-2P	Small Cable Feed-Through Grommets, Pack of 6	$15.99

Flange Mounting Brackets

These brackets convert many popular stud-mount lightning protectors, like Alpha Delta's Coaxial Surge Protector, to a flange mount. The conversion makes them easier to mount inside DX Engineering's UE-2P Utility Enclosure. Hardware is included.

DXE-ATT3G-BRKT	Flange Mounting Bracket, Straight	$4.99
DXE-RCT-BRKT	Flange Mounting Bracket, Right Angle	$6.99

Transi-Trap Broadband Coaxial Surge Protectors

ALPHA DELTA COMMUNICATIONS, INC.

These gas surge arrestors protect sensitive equipment from the excessive voltage and current caused by static buildup or a lightning strike. The 50 Ω DC voltage pass-through design is perfect if you're using coaxial cable to carry both RF and DC voltage, like in an antenna switch. These protectors use a replaceable Arc-Plug™ cartridge that you can change in the field without tools. They feature a 1/4"-20 mounting stud for easy installation.

The Defense Logistics Agency has assigned National Stock Number (NSN) 5920 01 5470278 to the model TT3G50 Coax Surge Protector and NSN 5325 01 5466841 to the 3G50 Arc-Plug cartridge for use in all U.S. Military and NATO applications worldwide.

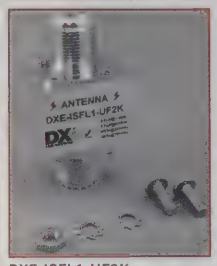
Part Number	Mount	Connector	Frequency	Power Handling	Price
ALF-ATT3G50	Stud	Type N	3 GHz	200 Watts	$61.99
ALF-ATT3G50HP	Stud	Type N	3 GHz	2,000 Watts	$61.99
ALF-ATT3G50F	Stud	F Connector	3 GHz	200 Watts	$61.99
ALF-ATT3G50FHP	Stud	F Connector	3 GHz	2,000 Watts	$61.99
ALF-ATT3G50U	Stud	SO-239	500 MHz	200 Watts	$51.99
ALF-ATT3G50UHP	Stud	SO-239	500 MHz	2,000 Watts	$51.99
ALF-AT3G50UBXL	Bulkhead	SO-239	500 MHz	200 Watts	$61.99
ALF-ATT3G50UBHP	Bulkhead	SO-239	500 MHz	2,000 Watts	$61.99
ALF-AT3G50UM90	90°	SO-239 & PL-259	500 MHz	200 Watts	$64.99
ALF-AT3G50UM90HP	90°	SO-239 & PL-259	500 MHz	2,000 Watts	$64.99
ALF-3G50	Replacement Arc-Plug			200 Watts	$14.99
ALF-3G50HP	Replacement Arc-Plug			2,000 Watts	$14.99

DX ENGINEERING

Surge Arrestors

Good insurance against harmful voltage spikes—DX Engineering's Surge Arrestors offer rock-solid reliability while withstanding multiple lightning strikes. They feature a DC blocked high-speed gas tube design that passes only RF frequencies. That means there is no continuity between connector center pins, which effectively prevents excessive voltage from entering your radio and equipment. They're compatible with all RF systems, except those sending DC power through the coaxial cable (bias-tee). The Surge Arrestors cover 1.5 to 700 MHz and handle up to 2,000 watts.

DXE-ISBH1-NF2K



DXE-ISFL1-UF2K

Part Number	Mount	Connector	Price
DXE-ISBH1-NF2K	Bulkhead	Type N	$59.99
DXE-ISBH1-UF2K	Bulkhead	SO-239	$69.99
DXE-ISFL1-NF2K	Flange	Type N	$59.99
DXE-ISFL1-UF2K	Flange	SO-239	$59.99

Broadband Coaxial Lightning Protectors

PolyPhaser CORPORATION

These 50 Ω, DC-blocked protectors are great for general, single transmitter use in the 1.5 to 700 MHz frequency ranges. Available with either a bulkhead or flange mount, Polyphaser's Lightning Protectors use a gas tube design that has no DC continuity between the center pins. Polyphaser's Multi-Strike products pass all RF frequencies while blocking all DC—offering excellent protection from voltage spikes.

PPR-IS-50UX-C0	UHF Female, Flange, 2,000 W, 1.5-700 MHz	$68.99
PPR-IS-50NX-C0	Type N Female, Flange, 2,000 W, 1.5-700 MHz	$62.99
PPR-IS-B50LN-C0	Type N Female, Bulkhead, 2,000 W, 1.5-700 MHz	$68.99
PPR-IS-B50LU-C0	UHF Female, Bulkhead, 2,000 W, 1.5-700 MHz	$71.99
PPR-IS-B50HU-C0	UHF Female, Bulkhead, 3,000 W, 1.5-700 MHz	$77.99

DIAMOND ANTENNA

Part Number	Description	Price
Lightning Arrestors		
DMN-SP3000	DC-3000 MHz, 200 W Max, Type N Female to Type N Female	$34.99
DMN-SP3000P	DC-3000 MHz, 400 W Max, Type N Female to Type N Male	$41.99
DMN-SP3000W	DC-3000 MHz, Waterproof, Type N Female to Type N Female	$41.99
Lightning Surge Protectors		
DMN-SP1000	DC-1000 MHz, 400 W Max, UHF Female to UHF Female	$31.99
DMN-SP1000PW	DC-1000 MHz, 400 W Max, UHF Female to UHF Male	$34.99

Receive Feedline Surge Protector

DX ENGINEERING

This unique in-line design is impedance matched to 75 Ω and virtually transparent to both analog and bi-directional signals from DC to 1.0 GHz. The patented and proprietary gas tube construction has an integral failshort mechanism for a power-cross condition that shunts both your cable's center conductor and sheath for a common path to ground. The protection element resets after each over-voltage incident.

DXE-RLP-75FF	Receive Feedline Surge Protector, 75 Ω, DC Pass, F Connectors	$13.99

LT Coaxial Surge Protector

ALPHA DELTA COMMUNICATIONS, INC.

Don't live in fear of lightning strikes. This unit is designed to protect your delicate and expensive equipment from lightning-induced voltage spikes. It covers frequencies from DC to 30 MHz and handles 200 watts. In-line installation is easy with two SO-239 connectors.

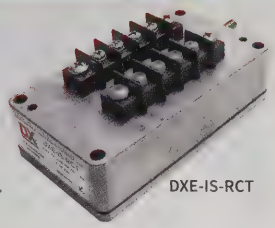
ALF-LT	LT Coaxial Surge Protector	$29.99
ALF-LT-ARC-PLUG	Replacement Arc Plug® for ALF-LT	$17.99

Hum's the Word.

A proper ground system is absolutely crucial in helping to squash out electrical noise in your Ham station. Don't just address grounding at your tower or antenna. Make sure you've got your shack gear all connected to a single point ground too. Check out page 106 for Grounding & Lightning Protection.

DX ENGINEERING

Rotator Control Line Protector



DXE-IS-RCT

Protect your control lines using this unit's eight individually shunt-protected terminals. When the voltage spikes above 82 Vdc in either polarity, the Rotator Control Line Protector automatically shunts the circuit to ground using an MOV for maximum surge protection.

The protector is housed in a weatherproof metal enclosure with an integrated mounting stud, which makes it easy to attach to a tower leg or ground rod. Terminal gaskets help prevent any moisture from entering the housing.

DXE-RCT-BRKT

DXE-IS-RCT	Rotator Control Line Protector	$169.99
DXE-RCT-BRKT	Right Angle Flange Mounting Bracket	$6.99

PARADAN radio

Antenna Disconnect Actuator

New!

This small, handy device can play a big part in protecting your station. Install Paradan's Antenna Disconnect Actuator in the coaxial cable that feeds the antenna. When power from your transceiver or station power supply is turned off, it automatically disconnects the antenna from your station and grounds the antenna feedline, reducing the chance of station damage from static-discharge, surges and lightning pulse effects. You'll never again have to worry about remembering to unplug the system. Further safeguards are provided via a gas discharge tube on the antenna coax input which protects the radio from lightning pulse damage while operating. The relays have diode protected coils to eliminate reverse spikes. The actuator's water-resistant enclosure may be installed in the shack at the output of the transceiver, amplifier or tuner, or outdoors in line with the antenna coaxial cable. The unit handles 1,500 watts of RF from 1.8 to 50 MHz.

PDN-P-ADA-1	Antenna Disconnect Actuator	$110.00

DX ENGINEERING

ECLS-Series Band Clamps with Stud

The ECLS-Series clamps feature a 3/4 inch long, 10-24 welded stud for easy connection of feed wire, baluns, current chokes, etc. to tubular elements. Stainless steel hardware included.

Band Clamps with Stud		Pack of 2
DXE-ECLS-050	0.500" OD Tube	$12.99
DXE-ECLS-062	0.625" OD Tube	$12.99
DXE-ECLS-075	0.750" OD Tube	$12.99
DXE-ECLS-087	0.875" OD Tube	$12.99
DXE-ECLS-100	1.000" OD Tube	$12.99
DXE-ECLS-125	1.250" OD Tube	$12.99
DXE-ECLS-150	1.500" OD Tube	$12.99
DXE-ECLS-175	1.750" OD Tube	$12.99
DXE-ECLS-200	2.000" OD Tube	$12.99
DXE-ECLS-225	2.250" OD Tube	$12.99
DXE-ECLS-250	2.500" OD Tube	$12.99
DXE-ECLS-275	2.750" OD Tube	$12.99
DXE-ECLS-300	3.000" OD Tube	$13.99
DXE-ECLS-325	3.250" OD Tube	$13.99

DX ENGINEERING

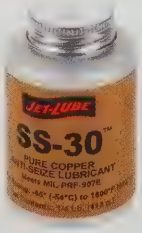
Exhaust System Grounding Kit

Many modern vehicles have separate fuel injectors and spark coils for each cylinder. These units can create substantial pulses on the vehicle wiring. Because the exhaust system is bolted directly to the engine and supported by insulated mounts, it can be excited just like an antenna and radiate pulse noise. By using one of our Exhaust Grounding Kits, you may eliminate that last bit of stubborn noise in your mobile installation. The kit includes a stainless steel saddle clamp and stainless steel hardware.

DXE-EGK-200	Grounding Kit for 2" Exhaust Pipe	$24.99
DXE-EGK-225	Grounding Kit for 2.25" Exhaust Pipe	$24.99
DXE-EGK-250	Grounding Kit for 2.5" Exhaust Pipe	$24.99
DXE-EGK-300	Grounding Kit for 3" Exhaust Pipe	$27.99

SS-30™ Pure Copper Anti-Seize Lubricant

JET-LUBE



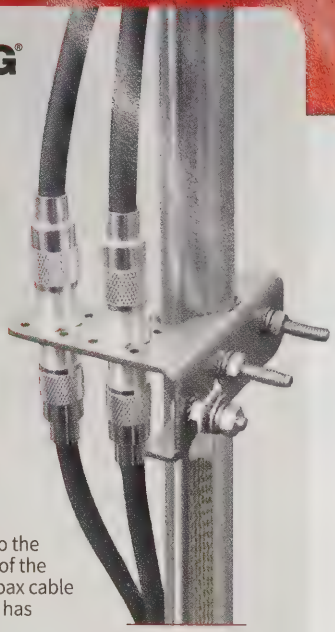
Use Jet-Lube on your taps, lugs, aluminum tubing joints, copper grounding straps, clamps, stainless steel hardware and virtually anywhere you need excellent electrical and RF conductivity. Jet-Lube prevents oxidization and corrosion, which makes it an effective thread lubricant and conductive anti-oxidant termination compound. Its superior anti-seize properties make it a must-have when making metal-to-metal connections. Jet-Lube is safe for aluminum, copper, bronze, steel, tin and galvanized hardware.

JTL-12555	Jet-Lube, 0.25 Lb. Brush-Top Can	$14.99
JTL-12502	Jet-Lube, 0.50 Lb. Brush-Top Can	$27.99

DX ENGINEERING

DXE-CGB-150

DXE-1023-2



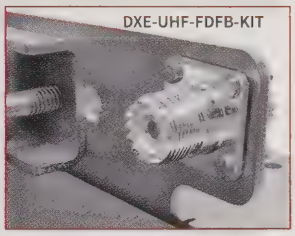
Typical Installation—Bracket and Connectors Shown with Optional Parts.

Coaxial Cable Grounding Brackets

The CGB-Series Coax Grounding Brackets are designed for grounding coaxial cable shields. The stainless steel bracket is supplied with a stainless steel V-bolt and hardware in your choice of two sizes for a solid connection to a tower leg or mast. Each bracket has holes for bulkhead connectors or chassis mount connectors, listed below.

The Grounding Bracket is an ideal junction point for the coax pigtails that form the rotor loop to connect to the downleads. The bracket can also be used at the base of the tower to provide a solid grounding point before the coax cable is routed away from the grounded tower. The bracket has serrated teeth to bite through paint and corrosion.

DXE-CGB-200	Grounding Bracket, Fits 1" to 2" OD Tube	$15.99
DXE-CGB-150	Grounding Bracket, Fits 1" to 1.50" OD Tube	$15.99
DXE-363-SST	SO-239, Bulkhead Connector with Socket Hardware	$7.49
DXE-UHF-FDFB-KIT	SecureMount™ Bulkhead Connector and Hardware Kit	$15.48
DXE-1023-2	Type N Double Female Bulkhead Adapter, Pack of 2	$17.99



DXE-UHF-FDFB-KIT

Ground Braid Assemblies

DX Engineering Ground Strap is available preassembled with lugs for both #10 and 1/4 inch bolt sizes. A grounding strap is ideal for grounding a rig, amp, etc. to a copper strip running behind the desk; the strip becomes the central ground point for the equipment. This central ground can be routed away with heavy copper strap to join any other similarly protected branches for single point grounding (SPG) lightning protection.

Other possible uses include noise reduction by grounding a vehicle exhaust, establishing a connection between a radial plate, balun and a vertical antenna to keep current off of the feedline, and any grounding application where a reliable connection is needed.

Assemblies with 1/2 Inch Wide Braided Strap		
DXE-TCB05-RT01	#10 Ring Lugs, 1'	$9.99
DXE-TCB05-RT03	#10 Ring Lugs, 3'	$10.99
DXE-TCB05-RT05	#10 Ring Lugs, 5'	$11.99
DXE-TCB05-RT10	#10 Ring Lugs, 10'	$15.99
DXE-TCB05-RT18I	1/4" Ring Lugs, 18"	$10.49
DXE-TCB05-RT24I	1/4" Ring Lugs, 2'	$10.99
DXE-TCB05-RT36I	1/4" Ring Lugs, 3'	$10.99
3/4 Inch Wide Braided Strap		
DXE-TCB075-RT18I	1/4" Ring Lugs, 18"	$10.49
DXE-TCB075-RT24I	1/4" Ring Lugs, 2'	$10.99
DXE-TCB075-RT03	1/4" Ring Lugs, 3'	$14.99
Assemblies with 1 Inch Wide Braided Strap		
DXE-TCB10-RT01	1/4" Ring Lugs, 1'	$10.99
DXE-TCB10-RT18I	1/4" Ring Lugs, 18"	$11.49
DXE-TCB10-RT24I	1/4" Ring Lugs, 2'	$11.99
DXE-TCB10-RT03	1/4" Ring Lugs, 3'	$15.99
DXE-TCB10-RT05	1/4" Ring Lugs, 5'	$17.99
DXE-TCB10-RT10	1/4" Ring Lugs, 10'	$24.99

DXE-TCB05-RT03

DXE-TCB10-RT18I

DXE-TCB10-RT24I

DXE-TCB10-RT03

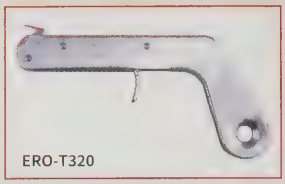
Ground Strap

DX Engineering offers quality tinned copper braid in 5 widths for grounding applications. It is sold per foot to accommodate almost any project. Very long per-foot lengths may not be continuous—contact Customer Service to discuss your length needs if continuous length is required.

The strap is available in these sizes:

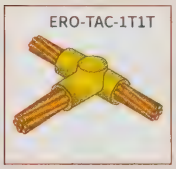
DXE-TCB-038	3/8" wide x 1/32" thick	per foot $0.45
DXE-TCB-050	1/2" wide x .030" thick	per foot $0.60
DXE-TCB-063	5/8" wide x .030" thick	per foot $0.80
DXE-TCB-075	3/4" wide x .040" thick	per foot $1.10
DXE-TCB-100	1" wide x .045" thick	per foot $1.25

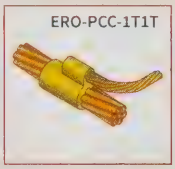
CADWELD® Exothermic Welding System


ERO-T320

The ideal way to secure a copper wire to a ground rod is by welding it securely to the top. The problem is, many of us don't have easy access to a welder. Erico's CADWELD process lets you make copper-to-copper or copper-to-steel electrical connections without the need for outside heat or power sources. The result is a permanent bond that won't loosen or corrode over time. Though it's relatively straightforward, we strongly recommend that you read and understand the CADWELD process before ordering. More One Shot modules available at DXEngineering.com.

Part Number	Wire Connections	For Rod OD	Fits AWG (Stranded)	Fits AWG (Solid)	Price
CADWELD One Shot Modules					
ERO-GR1-141G	1	1/2"	8	8, 6	$10.19
ERO-GR1-141L	1	1/2"	6,4	4, 3	$10.19
ERO-GR1-161G	1	5/8"	8	8, 6	$10.19
ERO-GR1-161L	1	5/8"	6, 4	4, 3	$10.19
ERO-GR1-161V	1	5/8"	3, 2	2, 1	$11.79
ERO-GT1-141G	2	1/2"	8	8, 6	$11.59
ERO-GT1-141L	2	1/2"	6, 4	4, 3	$11.59
ERO-GT1-141V	2	1/2"	3, 2	2, 1	$13.59
ERO-GT1-161G	2	5/8"	8	8, 6	$11.79
ERO-GT1-161L	2	5/8"	6, 4	4, 3	$11.19
ERO-GT1-161V	2	5/8"	3, 2	2, 1	$13.59
CADWELD Mold to Ground Bar					
ERO-GRT-14A1T	1	1/2"	—	2	$86.99
ERO-GRC-161T	1	5/8"	—	2	$133.99
ERO-GRC-181T	1	3/4"	—	2	$133.99
CADWELD Molds, General Use					
ERO-TAC-1T1T	Tee			2	$133.99
ERO-PCC-1T1T	Flyway			2	$133.99
ERO-XAC-1T1T	X			2	$133.99
ERO-XBC-1T1T	Stacked X			2	$133.99
ERO-LAC-1TCE	Cable to Lug/Bus Bar			2	$133.99
ERO-T320	Specialized Flint Igniter for CADWELD System				$10.39


ERO-TAC-1T1T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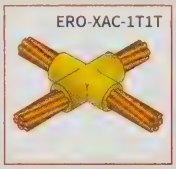
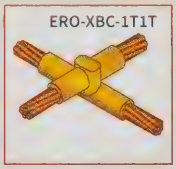
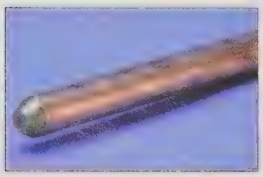

ERO-XAC-1T1T


ERO-XBC-1T1T

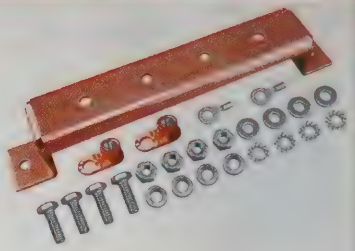
Copper-Bonded Ground Rods

Properly ground your station with these 99.9% pure electrolytic copper coated ground rods. The rods feature a high carbon steel core to ensure that they won't bend or distort while being driven into the Earth.



ERICO

Part Number	OD	Length	Price
ERO-613840	0.358"	4'	$7.59
ERO-613852	0.358"	5'	$9.49
ERO-613880	0.358"	8'	$13.99
ERO-611360	0.504"	6'	$15.29
ERO-615840	0.560"	4'	$10.99
ERO-615880	0.560"	8'	$18.99
ERO-615800	0.560"	10'	$23.99
ERO-615812	0.560"	12'	$36.99
ERO-613460	0.681"	6'	$23.59
ERO-613480	0.681"	8'	$30.99



Copper Ground Bus Wall Mount

As the foundation of your single-point ground system, DX Engineering's Copper Ground Bus Wall Mount is made from heavy-gauge tempered copper. That means it is strong enough to handle the weight of long cable runs. Can be installed indoors or outdoors, and include mounting hardware. The bracket has plenty of room for multiple PolyPhaser flange-mount or Alpha-Delta TT/ATT3G50 series coaxial surge protectors, find full dimensions at DXEngineering.com.

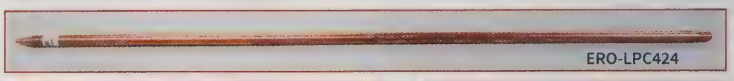
DXE-GBWM-W Copper Ground Bus Wall Mount, 10.8" $54.99

Copper Ground Bar

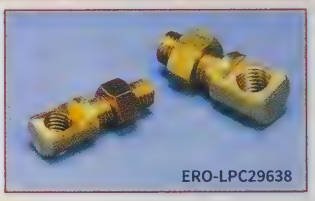
Make sure all your grounds are at equal potential. A near-zero voltage differential ensures a uniform path to ground, which helps protect you and your equipment. This 1/4" thick bar is an excellent start to your single-point grounding system.

ERICO

ERO-EGBA14210JF Copper Ground Bar, 2" x 10" $50.99


ERO-LPC424

ERO-LPC372L38


ERO-LPC29638

Air Terminals, Bases and Extension Adapters

ERICO

Also known as lightning rods, Air Terminals help shunt the energy from a lightning strike directly to the ground. They can potentially protect your radio equipment from the massive power surge of a nearby lightning hit.

Erico's 3/4" OD Air Terminals screw into a correlating Air Terminal Base. The bases clamp to any 1.5"-2.5" OD horizontal or vertical pipe. Optional Right Angle Extension Adapters can add an extra 2" offset to allow for better positioning of each air terminal.

Air Terminals

ERO-LPC424 Air Terminal, 48" High, 5/8" UNC Thread $124.99

Bases

ERO-LPC372L38 Air Terminal Base, 3/8" UNC Thread $25.99
ERO-LPC372L12 Air Terminal Base, 1/2" UNC Thread $25.99
ERO-LPC372L58 Air Terminal Base, 5/8" UNC Thread $25.99

Right Angle Extension Adapters

ERO-LPC29638 Right Angle Extension Adapter, 3/8" UNC Thread $34.99
ERO-LPC29612 Right Angle Extension Adapter, 1/2" UNC Thread $30.99
ERO-LPC29658 Right Angle Extension Adapter, 5/8" UNC Thread $42.99

Mid-Span Coaxial Grounding Kits

TIMES MICROWAVE SYSTEMS
An Amphenol Company

Easily install a ground lug virtually anywhere along your coaxial cable run. These kits are a great solution if you want to ground your cable in an atypical location. Simply strip back the cable jacket, tighten down the pre-formed metal strap and secure your ground lugs. Make sure to weatherproof your grounded section after you've installed one of these kits to prevent water ingress into the cable. Check out the Cleaning and Weatherproofing section of this catalog for tape and other supplies.

TMV-GK-S400TT Mid-Span Coaxial Grounding Kit, for LMR-400 Size Cable $27.99
TMV-GK-S600TT Mid-Span Coaxial Grounding Kit, for LMR-600 Size Cable $27.99

Ground Clamps and Connectors

ERICO

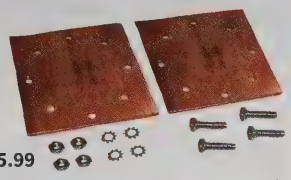
ERO-CP34

Solid mechanical connections are critical in a grounding system. These clamps aren't your basic hardware store variety; they are specifically made for precision electrical applications.

ERO-CP34 Ground Clamp, 1/2"-3/4" Rod to Cable, Bronze $3.39
ERO-CP58 Ground Clamp, 1/2"-5/8" Rod to Cable, Bronze $3.09
ERO-MBNC82 Mesh Bonding Network Connector, 8 AWG $5.09

DX ENGINEERING

Copper Strap to Copper Strap Clamp

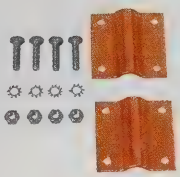


The DXE-MSC-3 bonding clamp is ideal for bonding two copper straps together, for extending an existing run or to add drops to equipment. It accepts ground straps from 1.5 to 3 inches and includes 18-8 stainless steel hardware.

DXE-MSC-3 Multi-Strap Clamp **$55.99**

DX ENGINEERING

Copper Strap to Copper Ground Rod Clamp



This clamp bonds a 0.625 inch ground rod to copper strap. 18-8 stainless steel hardware included.

DXE-58R-112S-2 Strap to Copper Ground Rod Clamp..... **$39.99**

DX ENGINEERING

Ground Wire to Copper Ground Rods

The DX Engineering J series clamps are used to connect ground wire to copper ground rods sized from 0.625 inch to 2.25 inches. They accept wire ranging from #2 stranded to #10 solid. These clamps are made of cast bronze and include 18-8 stainless steel hardware.

DXE-J-1 Wire to Rod Transition Clamp, 0.625" to 1.25" **$15.99**

DXE-J-2 Wire to Rod Transition Clamp, 1.25" to 2.25" **$22.99**

PolyPhaser CORPORATION

Coax Shield Ground Kits

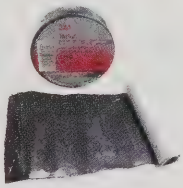
These kits provide a low inductance path for proper ground contact between a round member made from copper, brass, aluminum, tin or steel to corresponding copper, brass, aluminum, tin or steel grounding material. Examples: grounding the coax shield as the coax leaves the tower or connecting a round tower leg to the ground system. Three kits are available for various combinations of shield material to grounding material, and they fit coax shield or tower leg diameters from 1/4 inch to 2 1/8 inches. These kits include a perforated strap, an adjustable angle, 24 inch long tail strap, weatherproofing kit and all stainless steel brackets and hardware.

PPR-UNI-KIT-2CC Copper to Copper Ground Kit **$99.99**

PPR-UNI-KIT-2CT Copper to Aluminum Ground Kit **$169.99**

DX ENGINEERING

Weatherproofing Kits



Don't overlook the importance of weatherproofing your connectors. Moisture can cause corrosion, which leads to arcing, shorts and other significant RFI and electrical issues. The basic kit includes self-adhesive weatherproofing material and 3M Tartan 1710 vinyl UV-resistant electrical tape. The Upgraded version uses professional grade Scotch Super 33+ tape, while our Ultimate version includes Super 88 electrical tape.

DXE-WK-1 Basic Weatherproofing Kit, Tartan Tape **$9.99**

DXE-WK-2 Upgraded Weatherproofing Kit, Super 33+ Tape..... **$17.59**

DXE-WK-3 Ultimate Weatherproofing Kit, Super 88 Tape **$18.19**

Copper Strap to Tower

DX ENGINEERING

The TK clamp series has a stainless steel plate to go between the copper strap and galvanized tower leg to prevent corrosion due to dissimilar metals. For use with tower leg diameters from 0.625 inches to 3.25 inches.

DXE-TK-1A Strap to Tower Leg Ground Clamp, 0.625" to 1.25"..... **$8.99**

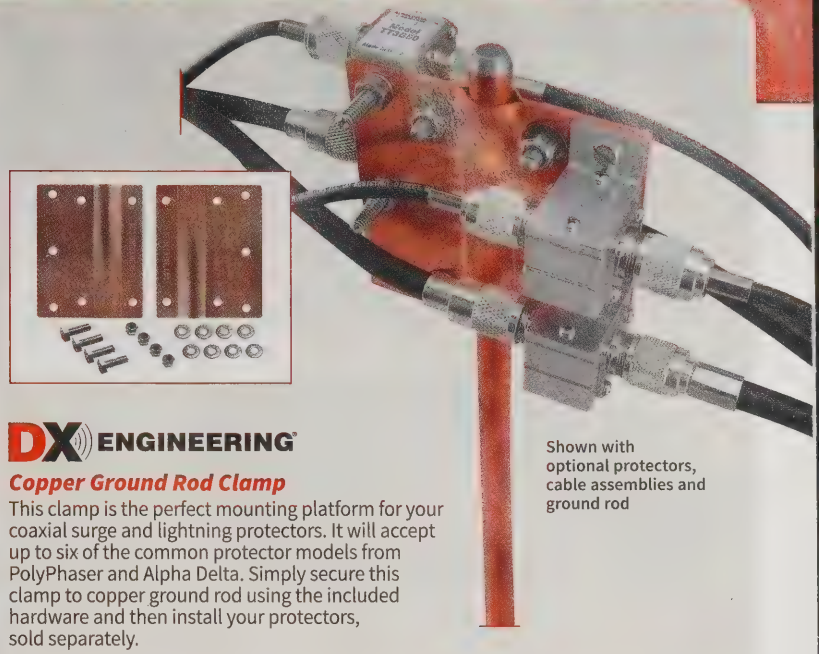
DXE-TK-2A Strap to Tower Leg Ground Clamp, 1.25" to 2.25"..... **$8.99**

DXE-TK-3 Strap to Tower Leg Ground Clamp, 2.25" to 3.25"..... **$8.99**

Copper Cleaning Kit

Proper preparation of the copper surfaces and application of copper joint compound prior to bonding is essential to maintain the low resistance properties of the strap connection. The copper cleaning kit has everything needed to establish the bond. The kit includes a non-abrasive scrub pad, copper joint compound and complete instructions.

DXE-CCK Copper Cleaning Kit **$19.99**



Shown with optional protectors, cable assemblies and ground rod

DX ENGINEERING

Copper Ground Rod Clamp

This clamp is the perfect mounting platform for your coaxial surge and lightning protectors. It will accept up to six of the common protector models from PolyPhaser and Alpha Delta. Simply secure this clamp to copper ground rod using the included hardware and then install your protectors, sold separately.

DXE-UCGC Copper Ground Clamp **$48.99**

Flexible Copper Grounding Strap

GC

A critical part of a low inductance ground system, copper strap's larger surface area has lower inductance per foot than equivalent cross-section wire. Use it to tie equipment back to a common ground point. Copper strap should also be used to make a non-resonant counterpoise for towers located on mountaintops or other rocky terrain. The copper straps listed here are 2" wide. The copper straps are also available in 1/2", 1", 1.5", 3", 4" and 6" widths in 25', 50' and 100' lengths at DXEngineering.com.

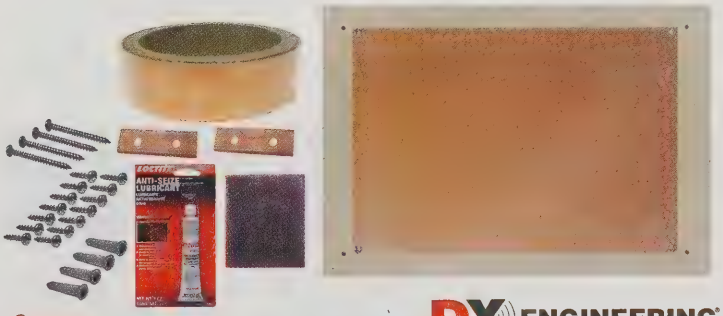
Part Number	Thickness	Length	Price
GCL-1120-025	0.012"	25'	**$44.99**
GCL-1120-050	0.012"	50'	**$73.99**
GCL-1120-100	0.012"	100'	**$132.99**
GCL-1220-025	0.022"	25'	**$65.99**
GCL-1220-050	0.022"	50'	**$115.99**
GCL-1220-100	0.022"	100'	**$214.99**

Flexible Copper Sheeting

GC

Perfect for making Faraday shields, or for fabricating heat sinks, covers, ground busses, solder tabs and more. The 12" x 12" sheet is 0.022" thick.

GCL-3215 Flexible Copper Sheeting..... **$15.99**



DX ENGINEERING

Copper Grounding Plate Kit

The DXE-CU-SPGP provides a convenient means to mount multiple lightning protectors and tie them to a common ground. The plate is an 18 x 12 inch painted board with a 15 x 10 x 0.063 inch piece of copper mounted to it. The board should be mounted to wall studs set on 16 inch centers.

DXE-CU-SPGP Copper Grounding Plate Kit **$299.99**

ALINCO

ALO-DM-30T

ALO-DM-330MVT

Switching Mode Power Supplies

Alinco adjustable power supplies perfectly complement its radios, yet they're also excellent bench supplies for gear that needs a stable, clean DC power source. They feature a selectable volt/amp meter and a handy noise offset knob to let you move the switching noise to another frequency. These supplies also incorporate short circuit and current limiting protection.

The DM-330 models have a programmable pre-set voltage function that lets you store the most frequently used voltage in the memory for quick access. The DM-330MVT and DM-30T accept 120 Vac input voltage, for 220 Vac input power applications, check out the DM-30E.

The new DM-430E is a compact, lightweight and high-powered switching power supply with Powerpoles® and an illuminated digital volt/amp meter.

Part Number	Output	Peak Current	Display	Connections	Price
ALO-DM-30T	9-15 Vdc	30A	Digital	Binding Posts, Powerpoles	$149.95
ALO-DM-30E	9-15 Vdc	30A	Digital	Binding Posts, Powerpoles	$149.95
ALO-DM-330MVT	5-15 Vdc	32A	Analog	Binding Posts, Cig. Lighter, Terminals	$165.95
ALO-DM-430E	9-15 Vdc	30A	Digital	Binding Posts, Powerpoles	$144.95
ALO-DM-430T	5-15 Vdc	30A	Digital	Binding Posts, Powerpoles	$144.95

YAESU
The radio

Power Supplies

Designed to work with Yaesu and other radios, these power supplies deliver a clean and steady 13.8 Vdc. An excellent choice for your base station, the FP-120 Switching Power Supply is fan cooled and supplies 23A (peak)/20A (cont.).

The FP-1030A offers 25A (peak)/22A (cont.). It's a fan-cooled, linear power supply with a pair of front panel volt and amp meters. The supply also features two pairs of terminals, a set of binding posts and a front panel cigarette lighter socket, making it a good bench supply for testing and diagnostic work.

YSU-FP-1023A Switching Power Supply $159.99
YSU-FP-1030A Linear Power Supply $269.99

KENWOOD

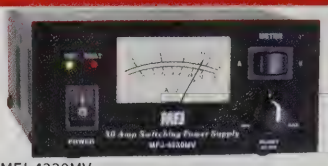
KWD-KPS-15

DC Switching Power Supplies

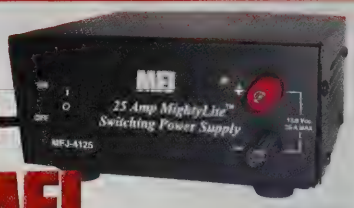
Kenwood has answered your call for versatile supplies that deliver clean, noise-free power. They both offer over-voltage, over-current, and over-temperature protection.

Kenwood designed the PS-60 for TS-590 series radios and the KPS-15 for mobiles. But both supplies will power virtually any radio that needs 13.8 Vdc at 23A (cont.)/25A (peak). Each supply can be set up to accept input voltages ranging from 110-240 Vac, 50/60 Hz.

KWD-KPS-15 Power Supply, 13.8 Vdc, 25A Peak, Convection Cooled ... $139.99
KWD-PS-60 Power Supply, 13.8 Vdc, 25A Peak, Fan Cooled $429.99



MFJ-4230MV



MFJ-4125

MFJ

MFJ-4225MV

MFJ-4245MV

MightyLite Switching Power Supplies

Packing plenty of power into a compact package, MightyLite Power Supplies may be the perfect solution for Hams who are short on space but big on power demands. There are several options to choose from, so you can get the supply that meets your power requirements. The supplies are designed to accept input voltages ranging from 85 Vac to 250 Vac, and carry important safeguards like over-voltage and over-current limiting protection. Each supply uses a whisper-quiet internal fan to keep temperatures down. These supplies are a reliable and budget-friendly way to feed your shack with DC voltage.

Part Number	Features	Output	Connections	Amps at 13.8 Vdc	Price
MFJ-4125	Small, Lightweight	13.8 Vdc	5-Way Posts	22A Cont. 25A Peak	$84.95
MFJ-4125P	Small, Lightweight	13.8 Vdc	5-Way Posts & Powerpole®	22A Cont. 25A Peak	$94.95
MFJ-4225MV	Front-Panel Meters and Control	9-15 Vdc	5-Way Posts & Cig. Socket	22A Cont. 25A Peak	$99.95
MFJ-4230MV	Front-Panel Meters and Control	4-16 Vdc	5-Way Posts	25A Cont. 30A Peak	$89.95
MFJ-4245MV	Front-Panel Meters and Control	9-15 Vdc	5-Way Posts & Cig. Socket	40A Cont. 45A Peak	$149.95

Heavy-Duty 75 Amp Switching Power Supply

With a whopping 70A continuous/75A peak, this unit can power your mobile HF, VHF/UHF rigs or high-current accessories without breaking a sweat. Voltage output is adjustable from 4 to 16 Vdc using the front panel knob. Dual meters let you monitor voltage and current, and there are indicator LEDs to show power and fault status.

This power supply has short circuit, overload and over-temperature protection. You can hook up your equipment with binding posts, Anderson Powerpoles®, quick connects and a handy cigarette-lighter socket. It uses a whisper-quiet cooling fan.

MFJ-4275MV Heavy-Duty 75 Amp Switching Power Supply $259.95

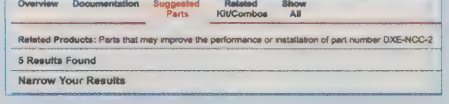
AMERITRON®

AME-SPS-75MV 75 Amp Switching Power Supply

This power supply provides 75 amps continuous output current—ideal for use with Ameritron's ALS-500M 500 watt solid state amplifier. It has less than 100 mV peak-to-peak ripple under full load. Load regulation is better than 1.5% under full load. Other features include reverse-polarity protection, brownout input protection, over-current/over-temperature protection and a thermally-controlled quiet fan. Output voltage is variable with metering for both voltage and current.

- Input: 108-132 Vac, 50/60 Hz
- Current Draw: 11 Amps

AME-SPS-75MV 75 Amp Switching Power Supply $259.95



DX ENGINEERING®

Suggested Parts

Sometimes Ham Radio gear requires special accessories like hookup cables and brackets to complete an installation. Visit DXEngineering.com and check out the "Suggested Parts" tab on certain products to see what you'll need to get up and running.

ASTRON CORPORATION

ASR-RS-35M

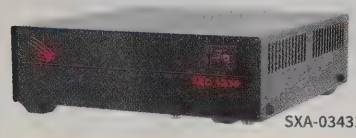
RS Power Supplies

These rugged, reliable units are electronically regulated to maintain low ripple at low-line input voltage. They are internally adjustable from 11 to 15 Vdc and include fold-back current limiting to protect your power supply from excessive current and continuous shorted output. Depending on the model, you get features like crowbar over-voltage protection, heavy-duty heat sinks and chassis-mounted fuses for extra protection against overheating and shorting.

"BB" in the part number denotes models that have an integrated battery backup and trickle charger. An "M" in the part number indicates that the units have either dual or single volt/amp meters.

Part Number	Description	Amps Continuous/Peak	Price
ASR-RS-4A	Power Supply	3A/4A at 13.8 Vdc	$59.99
ASR-RS-4L	Supply, Cigarette Port	3A/4A at 13.8 Vdc	$57.99
ASR-RS-5A	Power Supply	4A/5A at 13.8 Vdc	$66.99
ASR-RS-7A	Power Supply	5A/7A at 13.8 Vdc	$72.99
ASR-RS-12A	Power Supply	9A/12A at 13.8 Vdc	$94.99
ASR-RS-12M	Supply with Switchable Meter	9A/12A at 13.8 Vdc	$105.99
ASR-RS-12A-BB	Supply with Battery Backup	9A/12A at 13.8 Vdc	$109.99
ASR-RS-12M-BB	Supply with Meter and Backup	9A/12A at 13.8 Vdc	$121.99
ASR-RS-20A	Power Supply	16A/20A at 13.8 Vdc	$112.99
ASR-RS-20M	Supply with Dual Meters	16A/20A at 13.8 Vdc	$136.99
ASR-RS-20A-BB	Supply with Battery Backup	16A/20A at 13.8 Vdc	$139.99
ASR-RS-20M-BB	Supply with Meters and Backup	16A/20A at 13.8 Vdc	$179.99
ASR-RS-35A	Power Supply	25A/35A at 13.8 Vdc	$179.99
ASR-RS-35M	Supply with Dual Meters	25A/35A at 13.8 Vdc	$199.99
ASR-RS-50A	Power Supply	37A/50A at 13.8 Vdc	$279.99
ASR-RS-50M	Supply with Dual Meters	37A/50A at 13.8 Vdc	$319.99
ASR-RS-70A	Power Supply	57A/70A at 13.8 Vdc	$349.99
ASR-RS-70M	Supply with Dual Meters	57A/70A at 13.8 Vdc	$399.99

samlexamerica®


SXA-03431

SXA-03435

SEC Series Desktop Switching Power Supplies

Here are rock-solid power supplies that don't take up half of your shack. Compact and reliable, the SEC Series Desktop Switching Power Supplies are loaded with over-current, over-voltage and short-circuit protection. They're also well-filtered to produce clean, noise-free power.

Rack Plates

These durable standard-width rack plates are a great way to get your SEC-series power supplies off your desk and into a rack. They have a black powdercoat finish and cutouts for bottom-mounted fans.

DXE Number	Samlex Number	Output (Cont.)	Output (Peak)	Price
120 Vac Input				
SXA-03051	SEC-1212	10A at 13.8 Vdc	14A at 13.8 Vdc	$99.00
SXA-03061	SEC-1223	23A at 13.8 Vdc	25A at 13.8 Vdc	$126.00
SXA-03064^	SEC-1223BBM	23A at 13.8 Vdc	25A at 13.8 Vdc	$158.00
SXA-03431	SEC-1235	30A at 13.8 Vdc	35A at 13.8 Vdc	$133.00
SXA-03435*	SEC-1235M	30A at 13.8 Vdc	35A at 13.8 Vdc	$129.95
230 Vac Input				
SXA-03052	SEC-1212CE	10A at 13.8 Vdc	14A at 13.8 Vdc	$110.00
SXA-03062	SEC-3062	23A at 13.8 Vdc	25A at 13.8 Vdc	$132.00
Rackmount Plates for SEC Series				
SXA-03104	Rackmount Plate for Single Supply			$37.00
SXA-03105	Rackmount Plate for Dual Supplies			$49.00

* Includes Dual Meters ^ Includes Dual Meters and Battery Backup

ASTRON CORPORATION

ASR-RM-50M

Rack Mounted Linear Power Supplies

Get consistent, reliable power using these rack mounted linear power supplies. These adjustable, solid state supplies are electronically regulated to offer less than 5mV peak to peak ripple. They incorporate fold-back current limiting and a heavy duty heat sink to ensure years of solid power delivery. Find full details at DXEngineering.com.

Part Number	Description	Amps Continuous/Peak	Price
Rack Mounted Power Supplies with 11 to 15 Vdc Adjustable Output			
ASR-RM-12A	Power Supply	9A/12A at 13.8 Vdc	$126.99
ASR-RM-12A-BB	Power Supply, Battery Backup	9A/12A at 13.8 Vdc	$159.99
ASR-RM-12M	Power Supply, Dual Meters	9A/12A at 13.8 Vdc	$169.99
ASR-RM-12M-BB	Supply, Dual Meters, Battery Backup	9A/12A at 13.8 Vdc	$179.99
ASR-RM-20A	Power Supply	16A/20A at 13.8 Vdc	$164.99
ASR-RM-20A-BB	Power Supply, Battery Backup	16A/20A at 13.8 Vdc	$179.99
ASR-RM-20M	Power Supply, Dual Meters	16A/20A at 13.8 Vdc	$195.99
ASR-RM-20M-BB	Supply, Dual Meters, Battery Backup	16A/20A at 13.8 Vdc	$209.99
ASR-RM-35A	Power Supply	25A/35A at 13.8 Vdc	$309.99
ASR-RM-35A-BB	Power Supply, Battery Backup	25A/35A at 13.8 Vdc	$339.99
ASR-RM-35M	Power Supply, Dual Meters	25A/35A at 13.8 Vdc	$306.99
ASR-RM-35M-BB	Supply, Dual Meters, Battery Backup	25A/35A at 13.8 Vdc	$379.99
ASR-RM-50A	Power Supply	37A/50A at 13.8 Vdc	$349.99
ASR-RM-50A-BB	Power Supply, Battery Backup	37A/50A at 13.8 Vdc	$409.99
ASR-RM-50M	Power Supply, Dual Meters	37A/50A at 13.8 Vdc	$379.99
ASR-RM-50M-BB	Supply, Dual Meters, Battery Backup	37A/50A at 13.8 Vdc	$409.99
ASR-RM-60A	Power Supply	50A/55A at 13.8 Vdc	$439.99
ASR-RM-60A-BB	Power Supply, Battery Backup	50A/55A at 13.8 Vdc	$499.99
ASR-RM-60M	Power Supply, Dual Meters	50A/55A at 13.8 Vdc	$459.99
ASR-RM-60M-BB	Supply, Dual Meters, Battery Backup	50A/55A at 13.8 Vdc	$559.99
Rack Mounted Power Supplies with 22 to 32 Vdc Adjustable Output			
ASR-LSRM-25A	Power Supply	18A/25A at 28 Vdc	$369.99
ASR-LSRM-25M	Power Supply, Dual Meters	18A/25A at 28 Vdc	$369.99

samlexamerica®

SXA-03261

Rackmount Switching Power Supplies

Move your power supply to your rack and free up some space on your desk. These power supplies deliver clean, highly-filtered power in a range of input and output voltages. They include automatic battery backup and a trickle charger. A front panel multimeter displays voltage or amperage, and the supplies feature remote-metering capabilities. Each supply features over-current, over-voltage and short-circuit protection.

DXE Number	Samlex Number	Output (Cont.)	Output (Peak)	Price
120 Vac Input				
SXA-03261	SEC-40BRM	40A at 13.8 Vdc	46A at 13.8 Vdc	$453.00
SXA-03271	SEC-60BRM	60A at 13.8 Vdc	69A at 13.8 Vdc	$512.00
SXA-03281	SEC-80BRM	80A at 13.8 Vdc	92A at 13.8 Vdc	$570.00
SXA-03291	SEC-100BRM	100A at 13.8 Vdc	115A at 13.8 Vdc	$666.00
SXA-03364	SEC-2450BRM	50A at 27.6 Vdc	57.5A at 27.6 Vdc	$640.00
SXA-03418	SEC-4825BRM	25A at 54.2 Vdc	30A at 54.2 Vdc	$640.00
230 Vac Input				
SXA-03312	SEC-40BRM-220	40A at 13.8 Vdc	46A at 13.8 Vdc	$509.00
SXA-03342	SEC-100BRM-220	100A at 13.8 Vdc	115A at 13.8 Vdc	$735.00

SLS Series Switching Power Supplies

ASR-SLSRM-15

Astron's SLS Series supplies are filtered specifically against RF interference, including the HF range. They also include an EMI filter, making them perfect for powering sensitive communications equipment. These supplies provide 28 Vdc, and include current limiting, over-voltage and thermal protection, and a fused input. The SLS Series supplies are also selectable for 115 or 220 Vac input at either 50 or 60 Hz for excellent versatility.

ASTRON CORPORATION

Part Number	Description	Amps Continuous/Peak	Price
ASR-SLSRM-15	Rack Mounted SLS Power Supply	12.5A/15A at 28 Vdc	$148.99
ASR-SLSRM-15-2	Dual Rack Mounted SLS Supplies	12.5A/15A at 28 Vdc	$284.99
ASR-SLS-15	Standalone SLS Power Supply	12.5A/15A at 28 Vdc	$131.99

ASTRON CORPORATION

SS Series Switching Power Supplies

If you need a power supply that doesn't eat up the space on your desk, Astron offers these low profile options. They deliver a steady 13.8 Vdc and are immune to RFI. These supplies include an EMI filter to resist RFI, even in the HF bands.

The "M" in the number denotes models that include front panel volt and amp meters.

Part Number	Description	Amps Continuous/Peak	Price
ASR-SS-10	Power Supply	7A/10A at 13.8 Vdc	$84.99
ASR-SS-12	Power Supply	10A/12A at 13.8 Vdc	$93.99
ASR-SS-18	Power Supply	15A/18A at 13.8 Vdc	$104.99
ASR-SS-25	Power Supply	20A/25A at 13.8 Vdc	$119.99
ASR-SS-25M	Supply with Dual Meters	20A/25A at 13.8 Vdc	$139.99
ASR-SS-30	Power Supply	25A/30A at 13.8 Vdc	$139.99
ASR-SS-30M	Supply with Dual Meters	25A/30A at 13.8 Vdc	$149.99
ASR-SS-50	Power Supply	40A/50A at 13.8 Vdc	$189.99
ASR-SS-50M	Supply with Dual Meters	40A/50A at 13.8 Vdc	$199.99

GZV4000 and GZV6000 Switching Mode Power Supplies

DIAMOND ANTENNA

DMN-GZV4000

The GZV4000 provides a variable voltage output from 5 to 15 Vdc at 40 amps, while its higher-rated counterpart the GZV6000 gives you 1 to 15 Vdc at 60 amps.

These versatile power supplies look great and offer you rock-solid performance. The attractive front panel includes a selectable meter with post, snap-on and cigarette lighter outputs. The voltage control knob has a center 13.5 Vdc detent for precise adjustability. A built-in 8 watt speaker makes these power supplies a versatile addition to your shack's setup.

DMN-GZV4000 Switching Mode Power Supply, 40A $189.99
DMN-GZV6000 Switching Mode Power Supply, 60A $399.99

samlexamerica®

DC/AC Pure Sine Wave Inverters

SXA-07373

Radios, computers, A/V equipment and virtually any piece of precision electronic gear need the cleanest, most stable power source to function properly. Pure sine wave inverters are the best way to keep your transceiver and shack equipment functioning at their peak.

DXE Number	Samlex Number	Watts (Cont.)	Watts (Surge)	Receptacles	Price
12 Vdc In/115 Vac Out Pure Sine Wave Inverters					
SXA-07370	SSW-350-12A	350	700	2 AC, 1 USB	$103.00
SXA-07371	SSW-600-12A	600	1,200	2 AC, 1 USB	$178.00
SXA-07372	SSW-1000-12A	1,000	2,000	2 AC	$307.00
SXA-07374	SSW-1500-12A	1,500	3,000	2 AC	$367.00
SXA-07373	SSW-2000-12A	2,000	4,000	2 AC	$444.00
12 Vdc In/120 Vac Out Pure Sine Wave Inverters					
SXA-07223	PST-15S-12A	150	300	1 AC	$128.00
SXA-07213	PST-300-12	300	500	2 AC	$169.00
SXA-07215	PST-600-12	600	1,200	2 AC	$237.00
12 Vdc In/230 Vac Out Pure Sine Wave Inverters					
SXA-07313	PST-30S-12E	300	500	1 Schuko	$181.00
SXA-07323	PST-60S-12E	600	1,000	1 Schuko	$258.00

DX Engineering Super Card

Build your dream station with the best gear. Use your DX Engineering Super Card.

Take advantage of deferred interest payment options. Get the Card, Get the Gear, Get on the Air. Find all the terms and conditions of the DX Engineering Super Card at DXEngineering.com.

ASTRON CORPORATION

ASR-VS-35M

VS Power Supplies

Astron's VS line of 13.8 Vdc power supplies have the same reliable performance of the RS line.
These models also feature front-panel knobs, so you can easily adjust output from 2 to 15 Vdc. They include separate front-panel volt and amp meters.

Part Number	Description	Amps Continuous/Peak	Price
ASR-VS-12M	Power Supply	9A/12A at 13.8 Vdc	$151.99
ASR-VS-20ML	Supply, Cigarette Lighter Port	16A/20A at 13.8 Vdc	$159.99
ASR-VS-35M	Power Supply	25A/35A at 13.8 Vdc	$209.99
ASR-VS-50M	Power Supply	37A/50A at 13.8 Vdc	$324.99
ASR-VS-70M	Power Supply	57A/70A at 13.8 Vdc	$399.99

VLS Series Power Supplies

With an adjustable output voltage from 5 to 32 volts, these power supplies can provide DC power to a wide range of shack gear. They feature front-panel adjustable output controls, making them great bench "test" power supplies. These supplies are also great solutions if you have unique voltage requirements.

Part Number	Description	Amps Continuous/Peak	Price
ASR-VLS-10M	Supply with Dual Meters	8A/10A at 28 Vdc	$169.99
ASR-VLS-25M	Supply with Dual Meters	18A/25A at 28 Vdc	$329.99
ASR-VLS-35M	Supply with Dual Meters	27A/35A at 28 Vdc	$379.99

LS Power Supplies

Delivering an adjustable 22 to 32 volts of regulated DC power, these Astron linear power supplies feature over-voltage protection, low-ripple and a heavy duty heat sink. Each power supply incorporates fold-back current limiting to protect it from excessive current and accidental shorts.

Part Number	Description	Amps Continuous/Peak	Price
ASR-LS-3A	Power Supply	3A/4A at 28 Vdc	$79.99
ASR-LS-10A	Power Supply	8A/10A at 28 Vdc	$129.99
ASR-LS-18A	Power Supply	12A/18A at 28 Vdc	$2,149.99
ASR-LS-25A	Power Supply	18A/25A at 28 Vdc	$279.99
ASR-LS-35A	Power Supply	27A/35A at 28 Vdc	$319.99
ASR-LS-35M	Supply with Dual Meters	27A/35A at 28 Vdc	$379.99

samlexamerica®

SXA-07812

SAM Series DC/AC Modified Sine Wave Inverters

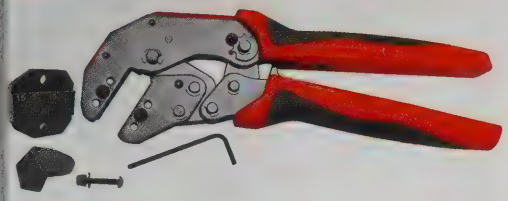
If you just want reliable DC power for your tools, lights or appliances, then you don't need a pure sine inverter. Save yourself some money and check out these modified DC/AC inverters. They convert 12- or 24-volt DC input voltage into reliable 120-volt AC.

The SAM series is both cost effective and powerful. The inverters boast a compact design, a load controlled cooling fan and an ETL safety listing. The PSE Series features a high-efficiency modified sine wave inverter with a high output current surge.

Consult the nearby table for more specs, visit DXEngineering.com or call us. We can help you select the right inverter for your power needs.

DXE Number	Samlex Number	Watts	Input (Vdc)	Receptacles	Surge (Watts)	Price
SXA-07806	SAM-100-12	100	12	1 AC/1 USB	200	$20.00
SXA-07807	SAM-250-12	250	12	1 AC/1 USB	500	$35.00
SXA-07808	SAM-450-12	450	12	2 AC/1 USB	900	$45.00
SXA-07828	SAM-450-12E	450	12	1 AC/1 USB	900	$40.00
SXA-07809	SAM-800-12	800	12	2 AC/1 USB	1,600	$74.00
SXA-07812	SAM-1000-12	1,000	12	2 AC	2,000	$118.00
SXA-07817	SAM-1500-12	1,500	12	2 AC	3,000	$217.00
SXA-07865	SAM-1500C-12	1,500	12	2 AC	3,000	$338.00
SXA-07827	SAM-2000-12	2,000	12	3 AC	4,000	$278.00
SXA-07836	SAM-3000-12	3,000	12	3 AC	6,000	$394.00

DX ENGINEERING



Ultra-Grip 2 Crimp Connector Hand Tool for Powerpoles®

Installing Powerpole® connectors? This tool ensures a professional-quality crimp on your coaxial cable. The crimp tool comes with dies for 15, 30 and 45 amp Anderson Powerpole connectors. Additional dies and a case are available separately.

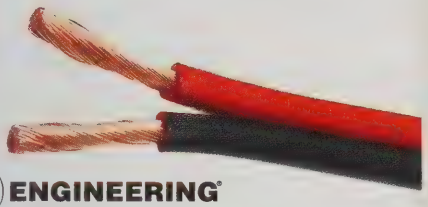
DXE-UT-CRMP2-PWR Ultra-Grip 2 Crimp Connector Tool for Powerpoles..... **$55.98**

Anderson Power Products®

Powerpole® Insertion or Extraction Tool

Use this specialized tool to properly install the metal contacts into your Powerpole connectors. It's compatible with PP15 to PP45 type connectors.

PPA-111038G2 Powerpole Insertion or Extraction Tool.....**$9.99**



DX ENGINEERING

Power Wire, 2 Conductor Zip Cord

Zip Cord is two-conductor cord which is typically used for low voltage DC power wiring circuits. The red and black colors make it simple to identify polarity for DC applications.

DXE-PW-8	Power Wire, 8-Gauge.....per foot	**$1.65**
DXE-PW-8-SPL	Power Wire, 8-Gauge, 500' Spool....	**$749.99**
DXE-PW-10	Power Wire, 10-Gauge.....per foot	**$1.19**
DXE-PW-12	Power Wire, 12-Gauge.....per foot	**$0.89**
DXE-PW-14	Power Wire, 14-Gauge.....per foot	**$0.59**
DXE-PW-16	Power Wire, 16-Gauge.....per foot	**$0.39**
DXE-PW-18	Power Wire, 18-Gauge.....per foot	**$0.23**

PPA-PCLIP-25PK

Powerpole® Retention Clips

These handy clips lock your Powerpoles in place, so you don't have to worry about them accidentally falling out of their receptacles. Use these clips to secure your Powerpoles safely on your DC outlet panel.

WMT-58257-1092	Retention Clips, Pack of 12	**$7.95**
PPA-PCLIP-25PK	Retention Clips, Pack of 25	**$10.49**
PPA-PCLIP-100PK	Retention Clips, Pack of 100	**$38.99**

PPA-STDHSG-11PK

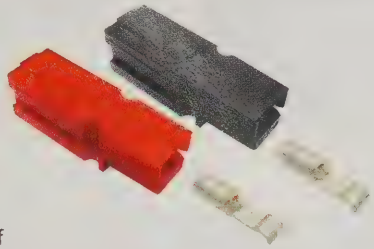
PPA-PP45-10PK

PPA-WP30-10PK

PPA-ASMPP30-8PK

APP Anderson Power Products®

An IDEAL Company



Powerpoles®

Powerpoles are the industry standard connectors for low voltage DC power applications. You'll find Powerpoles spec'd for a variety of government projects and they're in commercial broadcast stations all over the planet. They are the standard for ARES® and RACES units. The Powerpoles listed below safely handle 15-45 amps and are compatible with 20 to 10 AWG zip cord. In standard form, Powerpoles come disassembled, but there are also ultrasonically welded preassembled pairs that simplify installation.

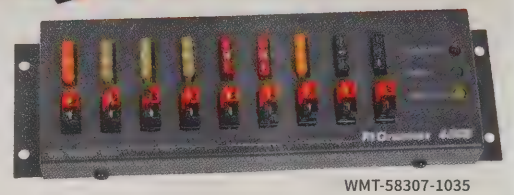
DX Engineering carries virtually any Powerpole variant you'll need, along with accessories, zip cord, and the proper assembly tools.

Part Number	Description	Quantity	Price
DXE-POWERBOX-C1	Connectors, Contacts, Clips, and Tool in Special Storage Case	1	**$69.85**
PPA-1327G21-10PK	Standard Connectors, Brown	10	**$5.99**
PPA-1327G22-10PK	Standard Connectors, Pink	10	**$5.99**
PPA-1327G23-10PK	Standard Connectors, Purple	10	**$5.99**
PPA-1327G17-10PK	Standard Connectors, Orange	10	**$5.99**
PPA-1327G18-10PK	Standard Connectors, Gray	10	**$5.99**
PPA-1327G7-10PK	Standard Connectors, White	10	**$5.99**
PPA-1327G8-10PK	Standard Connectors, Blue	10	**$5.99**
PPA-1327G16-10PK	Standard Connectors, Yellow	10	**$5.99**
PPA-1327G5-10PK	Standard Connectors, Green	10	**$5.99**
PPA-1327-10PK	Standard Connectors, Red	10	**$5.99**
PPA-1327G6-10PK	Standard Connectors, Black	10	**$5.99**
PPA-STDHSG-11PK	Standard Connectors, Assorted Colors	11	**$5.99**
PPA-PP15-10PK	Pair, 10 Red + 10 Black, for ≤ 16 AWG Wire	20	**$9.99**
PPA-PP45-10PK	Pair, 10 Red + 10 Black, for 10-14 AWG Wire	20	**$14.99**
PPA-PP45-25PK	Pair, 25 Red + 25 Black, for 10-14 AWG Wire	50	**$29.99**
PPA-PP45-50PK	Pair, 50 Red + 50 Black, for 10-14 AWG Wire	100	**$57.99**
PPA-PP45-100PK	Pair, 100 Red + 100 Black, for 10-14 AWG Wire	200	**$107.99**
PPA-PP30-10PK	Pair, 10 Red + 10 Black, for 12-16 AWG Wire	20	**$9.99**
PPA-PP30-25PK	Pair, 25 Red + 25 Black, for 12-16 AWG Wire	50	**$19.99**
PPA-PP30-50PK	Pair, 50 Red + 50 Black, for 12-16 AWG Wire	100	**$37.99**
PPA-PP30-100PK	Pair, 100 Red + 100 Black, for 12-16 AWG Wire	200	**$69.99**
PPA-WP30-10PK	Preassembled Welded Housing Pair, 10, for 12-16 AWG Wire	20	**$11.99**
PPA-WP30-40PK	Preassembled Welded Housing Pair, 40, for 12-16 AWG Wire	80	**$47.99**
PPA-WP30-100PK	Preassembled Welded Housing Pair, 100, for 12-16 AWG Wire	200	**$115.49**
PPA-ASMPP30-8PK	Powerpole Assembly, 2 Wire Red/Black, Single Row	8	**$8.99**
PPA-261G1-25PK	Contact Terminals Only, 30A, for 12-16 AWG Wire	25	**$15.99**
PPA-261G1-50PK	Contact Terminals Only, 30A, for 12-16 AWG Wire	50	**$31.99**
PPA-261G2-25PK	Contact Terminals Only, 45A, for 10-14 AWG Wire	25	**$8.49**
PPA-261G2-50PK	Contact Terminals Only, 45A, for 10-14 AWG Wire	50	**$16.49**
PPA-1331-25PK	Contact Terminals Only, 30A, for 12-16 AWG Wire	25	**$4.49**
PPA-1331-50PK	Contact Terminals Only, 30A, for 12-16 AWG Wire	50	**$8.99**
PPA-1332-25PK	Contact Terminals Only, 15A, for 16-20 AWG Wire	25	**$4.49**
PPA-1332-50PK	Contact Terminals Only, 15A, for 16-20 AWG Wire	50	**$8.99**
PPA-200G1L-25PK	Contact Terminals, 45A, for 10-14 AWG High Stranding Wire	25	**$13.99**
PPA-200G1L-50PK	Contact Terminals, 45A, for 10-14 AWG High Stranding Wire	50	**$26.99**
PPA-PCLIP-25PK	Retention Clips	25	**$10.49**
PPA-PCLIP-100PK	Retention Clips	100	**$38.99**

WEST MOUNTAIN RADIO

WMT-58315-1043

WMT-58307-1037


WMT-58307-1035

RIGrunner DC Outlet Panels

Got a pile of spaghetti where your DC power cables should be? These RIGrunner Outlet Panels will clean up your shack, while giving you some advanced features in the process. Each outlet is fused for protection and ensures you have reliable power distribution for your gear. Most provide 40 amps of maximum output current and include Powerpole® connectors and fuses. "U" models have USB ports, handy for charging your smartphone.

If you're installing one in a vehicle, check out the 4010S+ models, which feature programmable voltage thresholds and automatic on/off parameters, plus a built-in PWRguard.

Part Number	Description	Voltage Alarm	Power Cables	Powerpole® Connections	Price
WMT-58301-1028	RIGrunner 8012, 80A Input	Yes	8 AWG, 6'	12	$159.95
WMT-58303-1601	RIGrunner 4010S+, PWRguard	Yes	Sold Separately	10	$179.95
WMT-58303-1609	RIGrunner 4010S+, PWRguard	Yes	10 AWG, 6'	10	$199.95
WMT-58307-1034	RIGrunner 4008	Yes	10 AWG, 6'	8	$119.95
WMT-58307-1035	RIGrunner 4008	No	Sold Separately	8	$89.95
WMT-58307-1036	RIGrunner 4008H, Side Connectors	No	10 AWG, 6'	8	$109.95
WMT-58307-1037	RIGrunner 4008H, Side Connectors	No	Sold Separately	8	$89.95
WMT-58307-1124	RIGrunner 4008, -48 Vdc Negative	Yes	Sold Separately	8	$164.95
WMT-58307-1126	RIGrunner 4008, -48 Vdc Positive	Yes	Sold Separately	8	$124.95
WMT-58307-1125	RIGrunner 4008, -24 Vdc Positive	Yes	Sold Separately	8	$124.95
WMT-58312-1038	RIGrunner 4005	No	10 AWG, 6'	5	$79.99
WMT-58312-1039	RIGrunner 4005	No	Sold Separately	5	$64.95
WMT-58312-1040	RIGrunner 4005, Side Connectors	No	10 AWG, 6'	5	$84.95
WMT-58312-1041	RIGrunner 4005, Side Connectors	No	Sold Separately	5	$69.95
WMT-58315-1042	RIGrunner 4004U, 2 USB Charge Ports	No	10 AWG, 6'	4	$94.95
WMT-58315-1043	RIGrunner 4004U, 2 USB Charge Ports	No	Sold Separately	4	$79.95

MFJ-1117

MFJ-1118

MFJ

MFJ-1124

Multiple Outlet Panels

Answering your call for reliable and safe power distribution, these high-current outlet strips let you connect multiple pieces of gear without cluttering up your shack. They use heavy duty fused outputs to protect your equipment and are housed in an easy-to-mount aluminum chassis. Connection to your ground system is as simple as turning the wing nut on the chassis mounted lug. Fuses and 6 feet of stranded 8-gauge power cord are included.

Part Number	Description	Max. Current	High Current Connections	Low Current Connections	Price
MFJ-1112	DC Power Outlet Strip	15A	None	6 Binding Posts	$44.95
MFJ-1116	Switched Outlet Strip with Meter	15A	None	8 Binding Posts	$59.95
MFJ-1117	DC Power Outlet Strip	35A	2 Binding Posts	2 Binding Posts	$64.95
MFJ-1118	Switched Outlet Strip with Meter	35A	2 Binding Posts	6 Binding Posts	$84.95
MFJ-1124	DC Power Outlet Strip	40A	2 Powerpole®	2 Powerpole®	$64.95
MFJ-1126	Switched Outlet Strip with Meter	40A	1 Powerpole®	5 Powerpole®	$84.95
MFJ-1128	Switched Outlet Strip with Meter	40A	3 Powerpole®	9 Powerpole®	$104.95
MFJ-1129	Switched Outlet Strip with Meter	40A	2 Powerpole®1 Binding Post	5 Powerpole® 2 Binding Posts	$114.95

4-Way and Fuser-6 DC Distribution Boxes

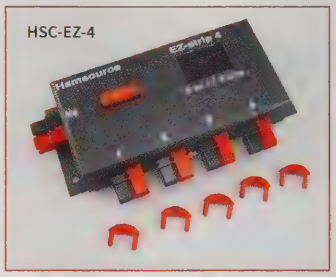
SOTABeams' lightweight and portable 4-Way DC Distribution Boxes provide a convenient way to power three devices using Anderson PowerPoles®. Simply attach your DC input cable to one set of connectors to power the other three sets. A fused input cable is recommended. With one input and 5 outputs, Fuser-6 DC Distribution Boxes make light work of connecting five accessories to your power source. All connectors are individually fused, and boards use genuine Anderson PCB contacts for lower contact resistance and improved reliability. Both models have a 25 amp continuous rating (total) and a 30 amp momentary surge rating. Choose from preassembled/tested models or easy-build kits. For more features and benefits, enter "SBM Boxes" at DXEngineering.com.

SBM-4-WAY-BLT 4-Way PowerPoles Connector Box, Preassembled $35.99

SBM-4-WAY-KIT 4-Way PowerPoles Connector Box, Kit $29.99

SBM-FUSER-6-BLT Fuser-6 PowerPoles Connector Box, Preassembled $72.99

SBM-FUSER-6-KIT Fuser-6 PowerPoles Connector Box, Kit $48.99



HSC-EZ-4

Hamsource

EZ Power Strips

Safely deliver DC power to your accessories. Using ultra-reliable Andersen Powerpole® connectors and individually fused outlets, Hamsource's EZ-4 and EZ-5 Power Strips deliver up to 40A output.

The EZ-5 can be used as a standalone power strip, or as an expansion panel to add more outputs to your original EZ Power Strip. The EZ-5 has 4 fused outputs, plus a 1A USB port. Short on space? The EZ-4 is a compact 4-output panel with a built-in LED voltage meter. Each strip includes the appropriate fuses, Powerpole connectors and locking clips.

HSC-EZ-4 EZ-4 Power Strip $59.99

HSC-PS-CABLE-6FT Power Supply Cable, 6' $12.99

EZ Meter II DC System Monitor

Closely monitor the condition of your DC power system with help from Hamsource. The meter displays voltage and current, and has a bright LED for quick, at-a-glance status indication. It's a great way to check power consumption and quickly detect and diagnose power issues. Plus, since the positive lead does the current sensing, you can install it in your mobile rig, too. The EZ Meter II has chassis-mount connectors.

HSC-EZMETERII EZ Meter II $79.99

Inline DC Multimeter Kit

Insert this meter in your shack's power system, and you'll be able to track voltage, current, watts and watt-hours. It only draws about 10mA, so there's no significant affect on your power consumption. It's a smart way to monitor your station's operational efficiency. The kit includes DC power wires and Powerpole® connectors. Some assembly required, shown with Powerpole connectors installed.

DMV-VAM-150-P Inline DC Voltmeter Kit $39.98

samlexamerica®

Three Stage Battery Chargers

Capable of charging flooded, AGM or Gel-Cell batteries, these UL-/ETL-approved chargers are versatile enough for multiple applications. Depending on the model, they can charge several banks of batters simultaneously, and when sized right, they'll be able to charge a battery even while it is under load. The chargers feature an ammeter, and incorporate short circuit, overload and reverse polarity protection.

DXE Number	Samlex Number	Description	Voltage/ Amperage	Price
SXA-08301	SEC-1215UL	Charger	12 Vdc/15A	$144.00
SXA-08302	SEC-1230UL	Charger, Handles 3 Battery Banks	12 Vdc/30A	$218.00
SXA-08305	SEC-2415UL	Charger	24 Vdc/15A	$218.00
SXA-08306	SEC-2425UL	Charger, Dual Ammeters	24 Vdc/25A	$371.00

West Mountain Radio

DC-to-GO

Combine a durable and weather resistant battery box with one of West Mountain's RIGrunner power distribution centers and you have a portable power station capable of feeding an entire radio setup. Available in multiple sizes and RIGrunner types, these DC-to-GO boxes can be the backbone of your emergency power system.

WMT-58513-1061 DC-to-GO $134.95

West Mountain Radio

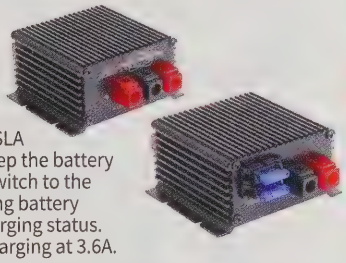
Temporary Power Node

Perfect for Field Day, EMCOMM, temporary installations or when you just need an extra outlet, this node gives you four pairs of paralleled Anderson Powerpole® connectors. Total rated current is 40A at 12 Vdc, just make sure your DC power wire gauge matches your power demands. Retaining clips are included.

WMT-58519-1067 Temporary Power Node $14.95

ASTRON CORPORATION

Battery Backup Module



Add battery backup to your shack. Just connect this unit between your power supply and a wet or SLA standby battery, and it acts as a float charger to keep the battery ready. If your AC power fails, it will automatically switch to the battery in an instant. Fuses protect the circuit during battery charge/discharge and a front LED indicates the charging status. Maximum battery load is 30A and the unit limits charging at 3.6A. The module works with 12- and 24-volt systems.

ASR-BB-30M Battery Backup Module $69.99

samlexamerica®

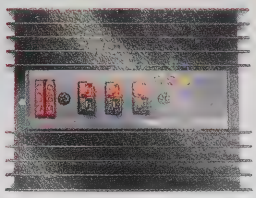
Battery Backup Module

Connect this module to your power supply and battery to make a battery backup system. When your AC power fails, the unit will instantly switch to your battery. When the AC power is restored, it switches back to charging. The module works with voltages from below 12 Vdc, up to 28 Vdc and can handle a maximum output current of 100 amps. This float-type battery charger can be an essential backbone for your shack or EMCOMM setup.

SXA-08081 BBM-12100 Battery Backup Module $131.00

West Mountain Radio

Super PWRgate PG40S



The Super PWRgate maintains a steady stream of up to 40A continuous from your power supply or battery and will instantly switch to battery backup if you lose power—you won't even notice the switchover. It also has a built-in battery charger to ensure that your battery is ready when you need it.

WMT-58403-1046 Super PWRgate PG40S $139.95

PWRguard Plus PG40S

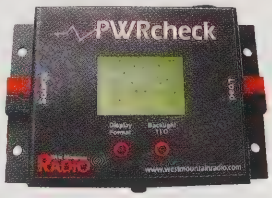
West Mountain Radio

If your power supply is rapidly changing, the PWRguard Plus can sense it and shut the system down, preventing expensive damage to your equipment. You can set the voltage trip threshold and the PWRguard has in-rush current protection as an extra precaution against damage. It's rated for a maximum of 40 amps (peak) and indicator LEDs let you know it is working.

WMT-58402-1045 PWRguard Plus PG40S $114.95

PWRcheck

West Mountain Radio



Put this in-stream between your source and load and you'll be able to closely monitor voltage, current, wattage and amp-hours in real time, in both directions. A large LCD screen displays everything and there's an intuitive USB interface. The PWRcheck also has logging capabilities and the readouts provide millivolt/milliamp precision.

WMT-58430-1286 PWRcheck $179.95

ISOpwr

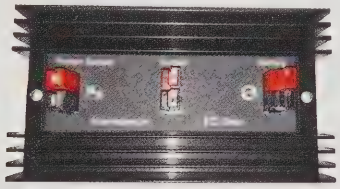
West Mountain Radio

Turn your vehicle into a battery charger. The ISOpwr lets you connect an additional battery to your vehicle's battery to charge both of them when the alternator is running. When the alternator stops, this unit isolates your main battery to prevent it from draining. It's an essential tool for power-hungry mobile installations like an ARES® or RACES command station, or contest mobile rover.

WMT-58401-1044 ISOpwr $89.95

HSC-EZGATE-80

HSC-EZGATE



Hamsource

EZ-Gate Battery Backup Switches

Get near-instantaneous switching between your battery backup and household AC power supply. These switches are designed for 13.8 Vdc, with an inline voltage drop of around .2 to .3 Vdc. Simply plug in your AC and DC power sources and use the large ring terminals to distribute power to your shack.

The EZ-Gate is suited for 40A distribution and 1A float charging, while the EZ-Gate 80 can handle 80A distribution and selectable 10/20A charging.

HSC-EZGATE-80 EZ-Gate, 80 Amp Distribution $189.99
HSC-EZGATE EZ-Gate, 40 Amp Distribution $69.99

MFJ

Super Battery Booster

Your mobile rig may not always get a stable 13.8 Vdc from your vehicle's battery. To combat the fluctuations in power and keep your radio operating at its fullest potential, install this MFJ Battery Booster. It ensures a steady stream of 13.8 Vdc and can be tailored to specific voltage limits, protecting your battery from over-discharge. An internal 30 amp input fuse prevents excess output and this unit has over-voltage protection. Input voltage and output voltage are adjustable.

MFJ-4416C Super Battery Booster $179.95

Deep Cycle Batteries

These AGM 12-volt batteries are ideal for Amateur Radio applications, or for any time you need long-lasting, portable power. They're spill-proof, vibration resistant and will mount in any position. The batteries are safe for indoor use and will survive long periods of slow discharge, making them perfect for EMCOMM trailers. You can also use these batteries in mobile installations that typically draw more power than your alternator can handle.

YellowTop Deep Cycle batteries have SAE automotive-style terminals while BlueTop Deep Cycle Marine batteries have both automotive-style terminals and threaded studs.

Part Number	Description	Cranking Amps at 0° F	Reserve Capacity	BCI Group Number	Price
ULT-9012-021	YellowTop	750	120 Minutes	34	**$276.99**
ULT-9014-045	YellowTop	750	120 Minutes	34/7	**$281.99**
ULT-9050-160	YellowTop	900	155 Minutes	31T	**$342.99**
ULT-9051-160	YellowTop	900	155 Minutes	31A	**$342.99**
ULT-9016-103	BlueTop	750	120 Minutes	34	**$276.99**
ULT-9027-127	BlueTop	800	140 Minutes	27	**$298.99**
ULT-9052-161	BlueTop	900	155 Minutes	31	**$330.99**

Deep Cycle Batteries can only be shipped by ground.

iX Series Portable Generator

Clean and quiet, this generator is practically tailor-made for Amateur Radio. It's also great for camping, tailgating or vacationing. At its core is a 4-stroke, pull-start gasoline engine housed in a rugged, yet easy-to-carry chassis.

This generator has status LEDs, plus output overload and low-oil shutdown safeguards. A selectable FlexPower mode conserves gas and reduces noise. The iX Series' special inverter technology offers less than 3 percent total harmonic distortion, ideal for sensitive electronic equipment.

The GNR-7117 provides 2,000 watts and delivers power through a standard 120 Vac outlet and 12 Vdc port, and features a 0.5 gallon tank. Find more generators and generator accessories, type keyword "Generator" into the search box at DXEngineering.com.

GNR-7117 iX Series Portable Generator, 2,000 Watts.....**$599.00**

VEL-PMLCDL

VEL-PMLED-5

Digital Panel Meters

Add a digital readout to your next project. Though they're easily configured to monitor either voltage or current, the meters can also be modified to display temperature, decibels, watts, capacitance, and a wide range of other parameters.

VEL-PMLED-5 LED Panel Meter, Req. 5 Vdc **$19.99**

VEL-PMLCDL LCD Panel Meter, Req. 9 Vdc **$9.99**

ATC Blade Fuses

Safe, reliable circuit protection. These automotive-style fuses are compatible with the DC power distribution panels from West Mountain Radio, Hamsource and MFJ, as well as some OEM-supplied radio power cords. They're color coded for easy identification.

ATC Blade Fuses Pack of 5 ..... from **$2.99**

Ceramic, Glass and Blade-Style Electrical Fuses

Don't overlook the importance of having reliable fuses to protect your gear. Often the last line of defense from power irregularities, shorts, etc., NTE fuses can save you a lot of heartache and money. These fuses are ideal for virtually any electronic component, including your sensitive communications gear. We carry too many fuses to list them all here, find our complete offering at DXEngineering.com.

Glass Fuses Pack of 5 .....from **$4.99**

Ceramic Fuses Pack of 5 .....from **$5.99**

ATC Fuses Pack of 5 .....from **$4.99**

ATM Fuses Pack of 5 .....from **$5.99**

Battery Tender Systems

If you're running a high-power mobile rig, dual batteries or a battery-powered standalone EMCOMM trailer, it's a good idea to take care of your battery. Deltran offers you several fantastic options in the Battery Tender line. Much better than simple trickle chargers, these units are packed with features to ensure that you'll have plenty of reliable DC on hand when you need it.

Battery Tender Plus

Designed to charge and maintain batteries at the proper storage level, the Battery Tender Plus is the flagship of Deltran's Battery Tender line. Using a three-step charging mode (bulk charge, absorption and float), the Battery Tender Plus keeps your battery charged without the damaging effects of a basic trickle charger. It features a quick-connect harness, reverse polarity protection and auto-switching between charging modes. It even reacts to ambient temperatures, adjusting charging power to ensure that your battery is ready to go, when you need it.

DTN-021-0128 Battery Tender Plus **$49.99**

Battery Tender Waterproof 800

Great for the field, the Battery Tender Waterproof 800 Charging System packs 800 mA of charging power into a compact package. It will constantly monitor your battery, making sure that it maintains optimum performance levels. The Waterproof 800 features short circuit and reverse polarity protection and resists the elements for years of trouble-free use.

DTN-022-0150DLWH Battery Tender Waterproof 800.....**$39.99**

Battery Tender Junior

If you're small on space but big on power demands, ensure you have a steady supply of DC with Deltran's Battery Tender Plus Junior. It has many of the powerful features of its big brothers in a small, extremely portable and lightweight package. It's spark-proof, with reverse polarity protection and a two-color LED indicates your battery's charging state.

DTN-021-0123 Battery Tender Junior.....**$27.99**

Battery Disconnect Switch

This switch gives you a quick way to positively shut off power from your battery. This combats unwanted drain, while helping to ensure that your battery remains charged until you need it. Rated for 20 amps continuous, it will also handle short duration surge loads of 125 amps.

SUM-G1432 Battery Disconnect Switch.....**$20.99**

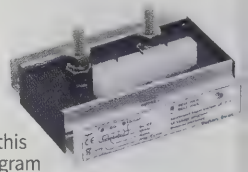
Analog Voltmeter Gauges

Keep a close eye on your 12-volt DC power with these precise gauges. With a 10- to 18-volt sweep, these 2.625" diameter backlit gauges will work great in your car, shack or portable rig.

SUM-G2939 Analog Voltmeter Gauge, White Face **$18.99**

SUM-G29119 Analog Voltmeter Gauge, Black Face..... **$25.99**

Battery Isolating Load Protector



This unit protects your battery and its load by isolating them from a variety of power faults. In the event of excessive load, this device will disconnect the battery automatically. You can program your own fault thresholds and it can handle 40 amps.

SXA-08645 BG-40 DC Isolating Load Protector **$87.00**

Bias-Tee Power Injector

Is your antenna array far from your shack? Here's a great way to ensure you can still get DC power down your coax to operate your remote tuners, rotor, etc. It works on frequencies from 1 to 60 MHz and has a switch to turn your remote equipment on and off. This unit requires a standard 2.1mm, 1A (max.) power adapter.

MFJ-4117 Bias-Tee Power Injector.....**$32.95**

AC Line RFI Filter

Squash that annoying RF hash coming from your AC power line. This filter significantly reduces the noise, transients and surges coming from your shack and the environment. This unit also features nanosecond-fast over-voltage protection. It is made for 120 Vac and has four receptacles.

MFJ-1164B AC Line RFI Filter..... **$74.95**

samlexamerica

Foldable Solar Battery Charging Kits

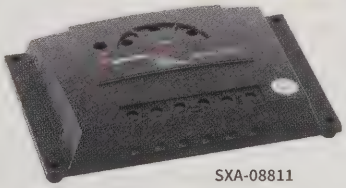
Samlex Solar Portable and Foldable Solar Battery Charging Kits are designed to charge all types of 12 Volt lead-acid batteries. Battery types may include wet cells, SLA, AGM, Gel and VRLA; all of which use lead-acid chemistry. Panels are built with strong anodized aluminum frames and high transparency solar glass for maximum light permeability and high efficiency. Folds away into stylish carrying case for quick transport or storage. Perfect for charging and maintaining 12-volt battery systems during disaster/emergency preparedness operations.

SXA-18160	Solar Battery Charging Kit, Portable, Foldable, Series, PWM, 10A, 135 W, 12V, Kit	$533.00
SXA-18161	Solar Battery Charging Kit, Portable, Foldable, Series, PWM, 10A, 90 W, 12V, Kit	$391.00

SXA-18040

SXA-18039

Solar Charging Kits



SXA-08811

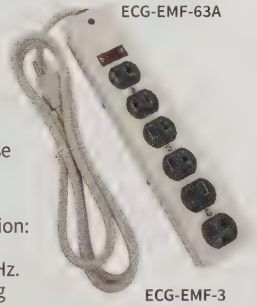
Use the sun to keep your EMCOMM trailer, Field Day setup, QRP rig or virtually any electrical device ready to go at a moment's notice. They are expandable to 500 watts, so they're the perfect starting point to build a comprehensive solar power system. The charging system kits have everything you'll need, except a battery. You can also buy the panel systems separately which have the connection wires and mounting hardware, but don't include the charge controller. See DXEngineering.com for all the details.

DXE Number	Description	Power (Watts)	Output Current (Amps)	Price
SXA-18030	Charging System	100	5.18	$515.00
SXA-18040	Solar Panel Kit	100	5.18	$346.00
SXA-18029	Charging System	150	8.16	$675.00
SXA-18039	Solar Panel Kit	150	8.16	$497.00
SXA-08725	Charge Controller, up to 47V	240 (Peak)	6	$28.70
SXA-08811	2-Stage Charge Controller	240 (Peak)	10	$57.00

ECG

ECG-EMF-67

ECG-EMF-63A



Surge Protectors

You've spent a lot of time and money to build the perfect station. Don't take chances on a box-store AC power strip. These options from ECG are tailor made for Amateur stations.

The EMF-63A has six outlets, each one surge protected from transient spikes up to 15 amps. It has full three-mode protection: hot to neutral, hot to ground and neutral to ground. It also suppresses up to 20 dB of EFI/RFI noise from 150 kHz to 30 MHz. The EMF-67 boasts seven outlets, protected to 15 amps, along with 20 dB of EFI/RFI noise suppression.

ECG-EMF-3

Perfect for vacationing or for ordinary household power needs, the EMF-3 packs two 15A surge-protected AC outlets, plus a pair of 5V/2A USB ports for your phone or tablet. Stuff one in your road bag; you'll use it sooner than you think.

ECG-EMF-63A	6-Outlet Surge Protector	$27.99
ECG-EMF-67	7-Outlet Surge Protector	$20.99
ECG-EMF-3	USB Surge Protector	$17.99

SUNSOCKET ENERGYBAR Portable Power Packs

Aspect Solar Guaranteed Performance™

Toss an ENERGYBAR in your mobile gear to keep your portable electronics powered up in the field. Much more than mere LiFEPO4 battery packs, these lightweight units feature multiple USB ports and a traditional cigarette lighter output. The 250 and 300 models even have a built-in inverter and outlet to power your AC devices. Intuitive displays indicate the ENERGYBARs' remaining battery life. DXEngineering.com has more detailed specs.

You can charge your ENERGYBAR three ways, via an AC source, your vehicle battery or through solar panels (vehicle adapter and solar panels sold separately). They're perfect for your mobile radios, laptops, phones, GPS units, cameras—practically any low-current 12-volt electrical device.

ASO-ENERGYBAR100	ENERGYBAR 100, 8A at 12 Vdc	$260.00
ASO-ENERGYBAR250	ENERGYBAR 250, 10A at 12 Vdc	$460.00
ASO-DC-154	ENERGYBAR DC Vehicle Charger	$48.00

Aspect Solar Guaranteed Performance™

DUO-FLEX2 Pro Solar Power Kit

Here's an all-in-one solar power kit. The solar panels feed Aspect Solar's potent 10,000 mAh battery pack, which can then be used to deliver voltage to your USB powered devices. The battery pack has the USB ports built-in, to make the entire kit compact and extremely portable. In fact, the panels zip together in a handy carrying pouch. Aspect Solar even throws in a set of carabiners to hang your panels, plus an AC adapter for charging your battery pack "on the grid." Extra battery packs are sold separately.

ASO-DUO-FLEX2PRO	Pro Solar Power Kit	$172.00
ASO-SB-30	Battery Pack, 8,000 mAh	$39.00

Aspect Solar Guaranteed Performance™

Mini Inverter

This handy inverter plugs right into your vehicle's 12-volt accessory port. It supplies 150 watts (cont.) of 110 Vac power via the built-in AC socket. There's a USB port to keep your smartphone and GPS powered up, too. For the price, keeping one in your glovebox is a no-brainer!

ASO-I1-150	Mini Inverter	$40.00

velleman projects

VEL-SOL5N

Solar Power Systems

Put Mother Nature to work during your next Field Day. Velleman makes an extensive list of components to allow you to build a comprehensive solar power system. These pieces are the perfect way to start exploring the possibilities of solar power, whether it's for a portable station, science experiment, school project or household application.

VEL-SOL2	Solar Cell, 2.6" x 3.7" x 0.2", 0.5 V, 800mA	$10.99
VEL-SOL4UCN2	Solar Charge Controller, for SOL8/SOL5N	$29.99
VEL-SOL5N	Solar Charger, 12 Vdc, Suction Cup Panel	$26.99
VEL-SOL8	Solar Charger, 12 Vdc, Briefcase-Style	$124.99

RigExpert®

Antenna Analyzers

Use these analyzers to test your antennas and feedlines. They'll greatly speed up the troubleshooting and repair process. Professionals have trusted RigExpert analyzers since 2003, yet their simple interfaces and straightforward controls make them ideal for hobbyists as well. You can use them for checking coax cable assemblies and measuring the capacitance or inductance of reactive loads.

They're powered by standard AA batteries, or a 5V USB port. You can move across the frequency range in 1 kHz steps, and the minimum sweep range is an impressive 10 kHz. Unlock even more features of these multi-lingual analyzers by connecting them to a PC.

RigExpert's SWR2Air mode turns antenna adjustment into a one-person job. It works by transmitting the SWR measurement on a user-specified frequency, so you can hear it on an HT. Simply listen to the length of the audio signal to determine the SWR value. Three models (AA-35ZOOM, AA-55ZOOM, AA-230ZOOM) come with zoom-in capabilities for clearer analysis of graphic points.

See the quick specs below for each analyzer and get more detailed information at DXEngineering.com.

Part Number	Frequency Range	Connector	SWR2AIR Mode?	MultiSWR Mode?	Reference Impedances	Screen (Pixels)	Price
REU-AA-35ZOOM	0.06 - 35 MHz	SO-239	Yes	Yes	25, 50, 75 & 100 Ω	Color (320 x 240)	**$269.99**
REU-AA-55ZOOM	0.06 - 55 MHz	SO-239	Yes	Yes	25, 50, 75 & 100 Ω	Color (320 x 240)	**$399.99**
REU-AA-230ZOOM	0.1 - 230 MHz	SO-239	Yes	Yes	25, 50, 75 & 100 Ω	Color (320 x 240)	**$499.99**
REU-AA-600	0.1 - 600 MHz	Type N (F)	Yes	Yes	25, 50, 75 & 100 Ω	Color (320 x 240)	**$609.99**
REU-AA-1000	0.1 - 1000 MHz	Type N (F)	Yes	Yes	25, 50, 75 & 100 Ω	Color (320 x 240)	**$769.99**
REU-AA-1400	0.1 - 1400 MHz	Type N (F)	Yes	Yes	25, 50, 75 & 100 Ω	Color (320 x 240)	**$999.99**

RigExpert®

plasticase NANUK PROFESSIONAL PROTECTIVE CASES

Analyzer and NANUK Case Combos

You rely on precise, accurate diagnostic information from your Antenna Analyzer, so keeping it safe and protected is critical. Problem is, finding a case that fits your analyzer isn't an exact science, and there's usually a lot of trial and error fitment involved.

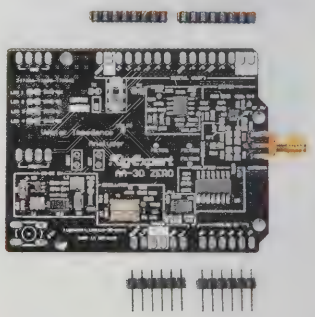
We've tackled that headache for you, pairing select Comet and RigExpert Antenna Analyzers with perfectly sized NANUK equipment cases. Each case will be filled with cubed, sectioned foam, so you can remove the exact amount you need. Plus, you can remove additional foam if you'd like to include any extra connectors or accessories that may fit in your case.

The combos are available with virtually any color NANUK case, so we won't list every one here. The AA-230 ZOOM combo also includes a case carrying strap. More specs and your color options can be found at DXEngineering.com.

Part Number*	Analyzer Model	NANUK Case Model	Price
DXE-35ZOOM-910_	RigExpert AA-35 ZOOM	910 Series	**$341.98**
DXE-55ZOOM-910_	RigExpert AA-55 ZOOM	910 Series	**$471.98**
DXE-230ZOOM-905_	RigExpert AA-230 ZOOM	905 Series, Strap Included	**$598.97**
DXE-AA600-910_	RigExpert AA-600	910 Series	**$681.98**
DXE-AA1000-910_	RigExpert AA-1000	910 Series	**$841.98**
DXE-AA1400-910_	RigExpert AA-1400	910 Series	**$1,071.98**
DXE-MARKII-905_	Comet CAA-500 Mk II	905 Series	**$467.98**

*The last character in the part number denotes case color and is left blank. Select your case color at DXEngineering.com. Discontinued AA-170 and AA-30 models fit 910 Series case.

RigExpert®



Antenna Analyzer Project Board

Here's a product sure to make Ham Radio experimenters stand up and shout "Eureka!" Rig Experts' Antenna Analyzer Project Board can be incorporated into a range of projects, from making your own automatic antenna tuner to pairing the AA-30ZERO with the ESP8266 Wi-Fi SoM to remotely perform RF-circuit or antenna analysis. You can connect the unit to your PC to perform all usual lab measurements. Plus, it's perfectly compatible with RigExpert AntScope software.There's no keyboard or readout here, but embed one of these low-cost boards into your latest project and make the magic happen. For full details, enter "REU Board Only" at DXEngineering.com.

REU-AA-30ZERO Antenna Analyzer, Board Only, 0.06 to 30 MHz **$84.99**

iPortable

iP60z Antenna Analyzer

Tailor made for portable use, iPortable's iP60z Antenna Analyzer is an ideal tool for running an efficient Field Day or EMCOMM station. It is small and compact, covering 400 kHz to 60 MHz (160 through 6 meters). The analyzer accepts 10 to 650 Ω loads and reads SWR from 1.0 to 9.9. The display is backlit and the unit is powered by a single 9 volt battery.

IPR-IP60Z iP60z Antenna Analyzer **$249.00**

COMET™

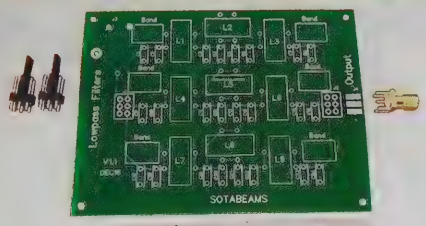
CAA-500 Mark II Antenna Analyzer

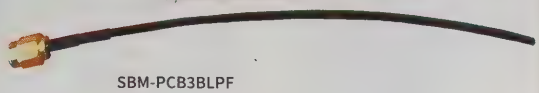
Improving on the revered CAA-500, the Mark II edition adds a full color LCD screen. The new display can show graphical and numerical SWR, total impedance (with X and R values), frequency and battery life. SWR and impedance are displayed simultaneously, allowing you to easily determine resonant frequency.

The analyzer will scan a frequency range in mere seconds, to make antenna adjustments and troubleshooting much quicker. The analyzer has broad frequency coverage, twin analog meters and two antenna connection jacks. It is powered by six AA batteries, which provide up to 14 hours of operation.

CMA-CAA500MARKII Antenna Analyzer **$399.99**

CMA-CAA-5SC Carrying Case **$42.99**



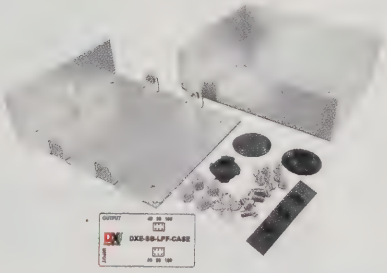


SBM-PCB3BLPF

3-Band Low Pass Filter Kit and Band Kits

SOTABeams now offers an easy-to-build 3-Band Low Pass Filter PCB Kit (SBM-PCB3BLPF), providing Hams with a simple way to enjoy three selectable low pass filters on a single PCB. Choose the Low Pass Filter Band Kit of component parts for the specific bands that you need to build; high-performance seven-element Chebyshev filters will meet regulatory requirements for transmitter spurious emissions. These kits can be used for the WSPRlite or for your own QRP transmitter, as well as for SDR front-end filter projects. Buy more than one PCB and extra parts kits to build and use on more than three bands.

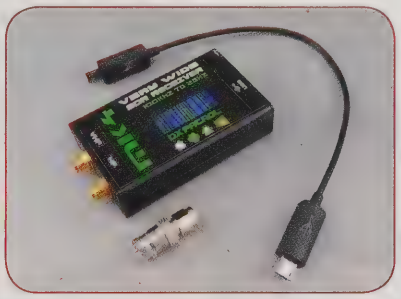
SBM-PCB3BLPF	3-Band Low Pass Filter PCB Kit	$22.99
SBM-PK160LPF	160M Band Kit for Low Pass Filter	$13.59
SBM-PK80LPF	80M Band Kit for Low Pass Filter	$13.59
SBM-PK60LPF	60M Band Kit for Low Pass Filter	$13.59
SBM-PK40LPF	40M Band Kit for Low Pass Filter	$13.59
SBM-PK30LPF	30M Band Kit for Low Pass Filter	$13.59
SBM-PK20LPF	20M Band Kit for Low Pass Filter	$13.59
SBM-PK17LPF	17M Band Kit for Low Pass Filter	$13.59
SBM-PK15LPF	15M Band Kit for Low Pass Filter	$13.59
SBM-PK12LPF	12M Band Kit for Low Pass Filter	$13.59
SBM-PK10LPF	10M Band Kit for Low Pass Filter	$13.59
SBM-PK6LPF	6M Band Kit for Low Pass Filter	$13.59



Enclosure Kit for SOTABeams 3-Band Low Pass Filter

Sturdy and easy to assemble, DX Engineering's enclosure kit is custom made to securely house SOTABeams original (VER I.I PCB) assembled 3-Band Low Pass Filter Kit (SBM-LOWPASSKIT). It only takes a few simple steps to mount the filter and build the box. Everything you need is included: top and bottom pieces for the aluminum case, PCB spacers, hardware and stick-on rubber feet. The enclosure has a soft grommet to protect the SMA cable and two easily removable hole covers to allow bandswitching of the optional filter assembly.

DXE-SB-LPF-CASE	Enclosure Kit for SBM-LOWPASSKIT Filter	$29.99



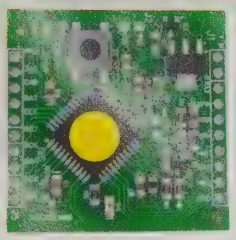
Ultra Wide-Band Coverage SDR Receiver MK4

Using cutting-edge software-defined tech, the DX Patrol Ultra Wide-band Coverage SDR Receiver MK4 gives you incredible 100 kHz to 2 GHz receive range capability with extraordinary dynamic range. But the bigger surprise is the MK4's size—it fits in the palm of your hand. The unit connects to your PC or Android-powered tablet or smartphone via USB to deliver an intuitive display and crystal-clear audio reception.

The MK4 has two separate SMA connectors to add your own HF and VHF antennas. It uses software that's completely free and setup is straightforward. A Micro-USB cable and SMA-to-BNC adapter are included.

DXP-DX-PATROLMK4	Ultra Wide-Band Coverage SDR Receiver MK4	$99.95

SBM-WBSPRLITE

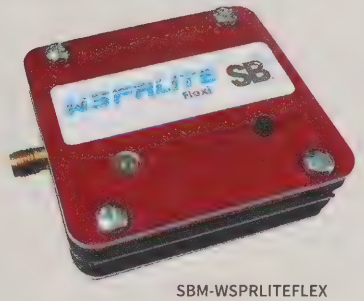


SBM-LB-MODULE-GP

SBM-BOXA-DUALKIT

SBM-LOAD-KIT

SBM-PWR-CNDNR



SBM-WSPRLITEFLEX

WSPRlite Propagation and Antenna Tester

WSPRlite is a specialized WSPR test beacon that transmits to a worldwide network of receiving stations. It works with SOTABeams' proprietary software to display a transmit signal's geographical range as well as received power on an easy-to-read propagation map. WSPRlite is entirely self contained and covers the 20 and 30 meter bands.

The WSPRlite system requires a PC running SOTABeams' DXplorer software. The system includes a free, one-year subscription to DXplorer Premium, WSPRlite's web-based reporting dashboard.

SOTABeams makes a Low Pass Kit to add 160, 80 and 40 meter capabilities to your WSPRlite. The easy-to-assemble PCB module features selectable low-bass filters for 7 MHz, 3.7 MHz and 1.8 MHz.

If you're using a PC-based USB port for power, the Keep-Alive kit will disable any "auto-off" or "sleep mode" features to ensure your WSPRlite stays powered up all the time. DX Engineering also carries a WSPRlite power conditioner and optional enclosure.

SBM-WSPRLITE	WSPRlite Propagation and Antenna Tester	$77.99
SBM-LOWPASSKIT	WSPRlite 160, 80 and 40M Add-On Kit	$36.99
SBM-LOAD-KIT	Keep-Alive Load Kit	$13.29
SBM-PWR-CNDNR	WSPRlite Power Conditioner Kit	$16.99
SBM-PWR-CASE	Power Conditioner Kit Enclosure	$13.99
SBM-WSPRLITELEAD	Micro On-The-Go Cable	$7.99

Adapter Cables for the WSPRlite

CMA-HS-05	RG-188, SMA Male/UHF Female, SO-239, 18"	$14.99
CMA-HS-10	RG-188, SMA Male/UHF Female, SO-239, 39"	$17.99
DMN-C104SMA	RG-58A/U, SMA Male/UHF Female, SO-239, 4'	$16.99
SBM-BNC-SMA	BNC Female to SMA Male Adapter	$9.99
SBM-SMA-SO239	SMA Male to SO-239 UHF Female Adapter	$9.99

WSPRlite Flexi Propagation and Antenna Tester

This low-power test transmitter sends a signal on your antenna out to a worldwide network of receiving stations listening in the WSPR mode. When used with the web-based DXplorer system, it allows you to see how your antenna is performing in its actual location and in real-time.

SBM-WSPRLITEFLEX	Propagation/Antenna Tester, WSPRlite Flexi, 630-6M	$93.99

LASERBEAM DSP Filter Modules

More effective at reducing QRM than mechanical or analog filters, these general purpose CW and SSB filter modules use special algorithm-based software to create well-defined passbands with steep contours.

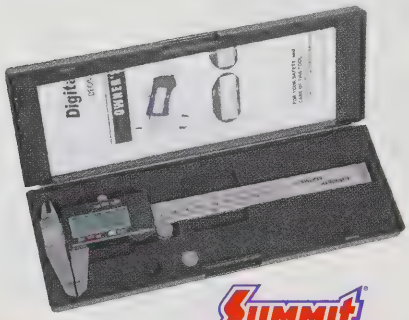
SBM-LB-MODULE-CW	CW Filter, Passbands (550-850 Hz), (300\1300 Hz)	$42.99
SBM-LB-MODULE-GP	CW (550-850 Hz) SSW (300-2700 Hz) Filter	$42.99
SBM-LB-MODULESSB	SSB, Stnd. (300-2700 Hz), Narrow (300-2400 Hz)	$42.99
SBM-BOXA-DUALKIT	Amplifier/Enclosure Kit for LASERBEAM-DUAL Filters	$29.99

HELIOGNOSIS

Electromagnetic Exposure Meter

Though most Ham stations generate safe levels of electromagnetic radiation, the only way to ensure yours is okay is through continual testing. Priced for the average Ham operator, Heliognosis' Electromagnetic Exposure Meter with its intuitive color-coded display is a smart way to monitor the electromagnetic radiation around you. It provides accurate, dependable readings across the EM spectrum, from 50 Hz to 18 GHz. That means it works for Ham Radio gear and a multitude of other household applications, like AC power lines, Wi-Fi networks, microwaves, florescent tubes and more.

HGS-HE-EM2 Electromagnetic Exposure Meter **$139.99**



SUMMIT RACING EQUIPMENT

Stainless Steel Digital Caliper

The only way to make precise outside, inside, step and depth measurements, this ultra-accurate caliper is made to provide years of service. A large LCD screen makes it easy to use. The caliper also features SAE-to-metric conversion, an on/off switch, locking thumb wheel and an instant zero setting.

SUM-900001 Stainless Steel Digital Caliper **$24.99**

LED Light Strip

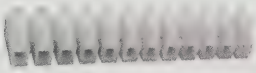
If you need a light source for your shack that won't draw a lot of power or generate excess heat, here is your solution. This trim-to-length 12-volt LED Light Strip can go underneath a shelf, in the back of a cabinet or in your car's trunk. It emits 200 lumens (the equivalent of a 12 watt fluorescent tube), yet only uses a maximum of 700mA. It comes with plastic caps for easy mounting.

HSC-LIGHTSTRIP LED Light Strip **$14.99**

HSC-ENDCAPS Additional End Caps, Pack of 2 ..... **$2.99**

NTE ELECTRONICS, INC

Barrier Strips



As the foundation of a permanent shack installation, these 12-pole Euro-style barrier strips ensure the best signal paths possible. They also make it easy to diagnose connectivity issues and present a professional appearance. The strips are rated to 300 volts.

Part Number	Rated Current	Wire Gauge	Pitch	Price
NTE-25-E2000-12	20A	20-12	8.2mm	$4.99
NTE-25-E2100-12	30A	18-10	10mm	$5.99
NTE-25-E2300-12	30A	12-10	15mm	$6.99
NTE-25-E2200-12	50A	14-8	11.5mm	$5.99

No License Required!

ALINCO

UHF FRS Transceiver

Way better than a box-store walkie-talkie, Alinco's DJ-FX45 is a great way to stay in touch with friends and family at ball games, amusement parks, malls and campgrounds. This radio is also an economical alternative to a cell phone, because the airtime is free. It packs the full transmit power allowed by the FCC and it works on all 14 of the Family Radio Service channels. Best of all, you don't need a license to use one, so they're perfect for introducing youngsters to the radio hobby!

It comes with a belt clip, Li-Ion battery pack and charger.

ALO-DJ-FX45 UHF FRS Transceiver **$39.95**

Test Jumpers and Clip Leads

NTE ELECTRONICS, INC

NTE-72-111

Perhaps the most useful tools in electrical troubleshooting and project building. The jumpers are about 12" long and are sold in packs of 10 multicolored assemblies. The plunger clip leads are handy—whether you're working on PCBs or point-to-point wiring.

NTE-72-111 Test Jumpers **$9.99**

NTE-72-110 Clip Leads **$17.99**

velleman projects

Hook-Up Wire Assortments

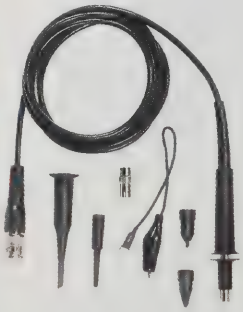
No more scrounging through storage tubs or pillaging old projects for spare wire. Velleman has bundled together 60 meters (about 200 feet) of wire in 20 foot lengths of assorted colors. This 24-gauge copper wire handles 4.3A and is shielded with a PVC jacket. It's perfect for your low-voltage (<60 V) jobs. And at this price, you can buy enough to wire an Apollo Lunar Module!

VEL-K-MOW Stranded **$12.99**

VEL-K-MOWM Solid **$12.99**

ECG

100 MHz Oscilloscope Probe



An excellent replacement for a missing or damaged probe. It includes a ground-lead clip and hook attachment, plus an insulating tip and an IC tip. The versatile probe also comes with a BNC connector, making it compatible with most popular scopes. A 1x and 10x selector switch (with ground reference setting) makes this a versatile probe for electrical troubleshooting.

ECG-PR-100 Oscilloscope Probe **$41.99**

velleman projects

VEL-DVM810

Digital Multimeters

The key to reliable performance is a good set of diagnostic and troubleshooting tools, and a quality multimeter is the cornerstone of any Ham's tool kit. Velleman makes a wide range of digital multimeters, with prices and features tailored to both professionals and hobbyists alike. See the list below and find full specs on each multimeter at DX Engineering.com by typing keywords "VEL Multimeter" into the search box.

VEL-DVM810 Mini, 19 Ranges **$9.99**

VEL-DVM850BL Automatic Polarity Function **$15.99**

VEL-DVM-890F 30 Ranges **$39.99**

VEL-DVM-890L 29 Ranges **$29.99**

VEL-DCM266L Clamp-On **$19.99**

ECG

DM-21 Digital Multimeter

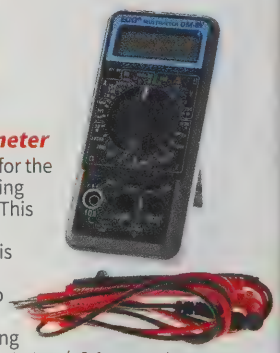
Every Amateur Radio operator should have a good, reliable multimeter in their shack. The DM-21 fits the bill nicely, offering a ton of features at a budget-friendly price. It has seven different functions in 11 ranges, which makes it a versatile addition to any hobbyist's or professional's toolkit. In addition to the standard voltage, continuity, current and resistance metering, you can use the DM-21 to test diodes/LEDs and transistors. It even has as an integrated square wave generator. It's over-current and polarity protected, and has a handy tilt-stand for workbench testing.

ECG-DM-21 Digital Multimeter **$34.99**

ECG-MC-50 Carrying Case for DM-21/59 ..... **$7.99**

ECG

DM-59 Digital Multimeter



This is an excellent meter for the homebrew designer, offering 10 functions in 30 ranges. This meteralso has a precision capacitance tester, which is great for troubleshooting older gear. The DM-59 also bundles in a frequency measurement tool, covering 2 kHz to 15 MHz and accurate to +/- 0.1 percent. Find all the details on this meter at DXEngineering.com.

ECG-DM-59 Digital Multimeter **$51.99**

ECG-MC-50 Carrying Case for DM-21/59 ..... **$7.99**

velleman projects

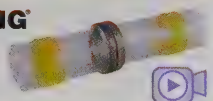
Handheld Oscilloscope

Delivering 40 Mega samples per second in real time, this powerful unit features bandwidth up to 10MHz, full auto range option, sensitivity down to 0.1mV, signal markers for amplitude and time, and time-saving memory hold function. Intuitive menus make this a convenient and easy-to-use testing tool for any station.

VEL-HPS140MK2 Handheld Oscilloscope **$169.99**

Call us for easy special orders!

DX ENGINEERING



Heat Shrink Insulated Butt Connectors

DXE-HSIB-1210-_

Get your station projects done the right way with Heat Shrink Insulated Butt Connectors with internal fluxed solder ring. These no-crimping-required connectors feature a transparent sleeve for precise visual inspections, greater pull strength than PVC or nylon connectors, heat shrinkable tube insulation, maximum 600V rating, color-coding to industry standard wire gauges, and full waterproofing to protect against corrosion. Check out our YouTube channel for an in-depth product demo!

DXE-HSIB-1210-10	10 Pack, 12-10 AWG	$8.99
DXE-HSIB-1210-25	25 Pack, 12-10 AWG	$12.99
DXE-HSIB-1210-50	50 Pack, 12-10 AWG	$24.99
DXE-HSIB-1614-10	10 Pack, 16-14 AWG	$7.99
DXE-HSIB-1614-25	25 Pack, 16-14 AWG	$11.99
DXE-HSIB-1614-50	50 Pack, 16-14 AWG	$22.99
DXE-HSIB-2218-10	10 Pack, 22-18 AWG	$6.99
DXE-HSIB-2218-25	25 Pack, 22-18 AWG	$10.99
DXE-HSIB-2218-50	50 Pack, 22-18 AWG	$21.99
DXE-HSIB-2624-10	10 Pack, 26-24 AWG	$5.99
DXE-HSIB-2624-25	25 Pack, 26-24 AWG	$9.99
DXE-HSIB-2624-50	50 Pack, 26-24 AWG	$19.99
DXE-HSIB-PACK1	24 Pack, 6 Each, 12-10, 16-14, 22-18, 26-24 AWG	$6.99
DXE-HSIB-PACK2	40 Pack, 10 Each, 12-10, 16-14, 22-18, 26-24 AWG	$10.99
DXE-HSIB-PACK3	80 Pack, 20 Each, 12-10, 16-14, 22-18, 26-24 AWG	$19.99

SUMMIT RACING EQUIPMENT

Solderless Nylon Terminal Kit

A great kit to have in your shack, this kit includes connectors that are tougher, better insulated and more corrosion-resistant than ordinary store-bought ones. You get 180 connectors for 22- to 18- and 12- to 10-gauge wire ranges, all packaged in a neat storage case.

SUM-890093 Solderless Nylon Terminal Kit $26.99

3M

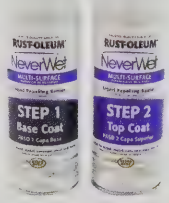
3M™ Dry Type Silicone Lubricant

Spray Silicone Lubricant is an aerosol lubricant designed for a variety of lubricating applications. It is a versatile product which is used for lubricating moving parts, eliminating squeaks caused by friction; protecting against rust and corrosion; sealing out moisture; preventing buildup of glues, waxes, inks, paints, etc.; preserving plastics, rubber, leather; and prolonging the life of cutting tools. It does not contain petroleum oils. It will not stain or become gummy.

TES-08897 Silicone Lubricant (Dry Type) $8.99

• TRUSTED QUALITY SINCE 1921 •
RUST-OLEUM®

NeverWet



This is one of the most innovative products to hit our hobby since the spark-gap transmitter. This two-step coating system essentially creates a watertight surface that resists moisture. Check out some of the demonstrations all over the web and you can see how useful NeverWet would be around your shack, antenna farm or mobile rig.

RLL-274232 NeverWet $16.99

DX ENGINEERING

DXE-CAB-WBOXES

DXE-CAB-NOBOX

DXE-POWERBOX-C1

Partsbox Storage Cabinets

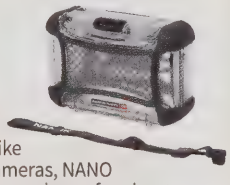
If you've got DX Engineering Partsbox Storage Cases scattered about your shack, now there's a sure-fire way to keep them together. Just slide the cases into a sturdy DX Engineering Partsbox Storage Cabinet to stay organized and enjoy quick access to the parts you need. Each stackable cabinet is 15-1/2" W x 16" H x 14-1/2" D. Drawers hold each Partsbox Storage Case snugly and slide out 10 inches. The cabinet either comes empty or loaded with empty Partsboxes. The Crimp Style Connector Partsbox and Anderson PowerPoles Connector Partsbox sold separately.

DXE-CAB-WBOXES	Cabinet with 5 Trays/5 Empty Storage Boxes	$129.99
DXE-CAB-NOBOX	Cabinet with 5 Trays/ No Boxes	$72.99
DXE-PARTSBOX-1	Partsbox Storage Box Only, Clear, Single Empty	$12.99

Partsbox Storage Case Kits

DXE-COAXBOX-C1	Partsbox w/Assortment of Crimp Style Coaxial Connectors	$89.96
DXE-POWERBOX-C1	Partsbox w/Assortment of PowerPole Connectors	$69.85

plasticase NANUK PROFESSIONAL PROTECTIVE CASES



NANO Equipment Cases

Perfectly sized for smaller gear like smartphones, HTs and digital cameras, NANO Equipment Cases have the same crushproof and water resistant characteristics of NANUK's larger cases. NANO Cases are feature the exclusive Powerclaw™ latching system and are airline carry-on approved. These cases also accept a padlock and include a small wrist strap. Exterior dimensions: 7.4" L x 5.1" W x 2.6" H

NANO Equipment Cases

PSC-330-0001	Black	$36.99
PSC-330-0002	Translucent Lime	$36.99
PSC-330-0003	Translucent Orange	$36.99
PSC-330-0008	Translucent Blue	$36.99
PSC-330-0009	Translucent Red	$36.99
PSC-330-0011	Clear	$36.99
PSC-330-0012	White	$36.99
PSC-330-0013	Translucent Purple	$36.99

DX ENGINEERING

Easy International Ordering

DXEngineering.com has a simple shipping calculator that can give you an exact price total before you check out. No matter what country you're in, we can get you the parts and gear you need to get on the air. Same-day shipping means you'll get it quickly, too.

plasticase NANUK PROFESSIONAL PROTECTIVE CASES

NANUK Equipment Cases

From arctic blasts to scorching desert heat, NANUK Equipment Cases have been tested and proven in the harshest environments on the planet. They're designed to meet strict military standards and are virtually indestructible. Each one is made from NANUK's exclusive high-impact resin, which means they're extraordinarily strong yet lightweight. A hollow core gasket makes the cases watertight and PowerClaw latches ensure the lids stay closed. They also have built in flanges to accept a padlock. NANUK stands behind all of its cases with a lifetime guarantee.

NANUK Equipment Cases are available in a wide range of sizes. Each one listed below is filled with cubed foam that you can easily pull away to create a custom foam recess for your gear. Most cases are also available empty and a padded foam divider is sold separately to give you more storage options. Additional case sizes, custom foam and accessories are available at DXEngineering.com.

Part Number	Color	Price
905 Series Cases, with foam Ext. Dimensions: 12.5" L x 10.1" W x 6" H		
PSC-905-1001	Black	$67.99
PSC-905-1002	Lime	$67.99
PSC-905-1003	Orange	$67.99
PSC-905-1004	Yellow	$67.99
PSC-905-1005	Silver	$67.99
PSC-905-1006	Olive	$67.99
PSC-905-1007	Graphite	$67.99
910 Series Cases, with foam Ext. Dimensions: 14.3" L x 11.1" W x 4.7" H		
PSC-910-1000	Tan	$71.99
PSC-910-1001	Black	$71.99
PSC-910-1002	Lime	$71.99
PSC-910-1003	Orange	$71.99
PSC-910-1004	Yellow	$71.99
PSC-910-1005	Silver	$71.99
PSC-910-1006	Olive	$71.99
PSC-910-1007	Graphite	$71.99
935 Series Wheeled Cases, with foam Ext. Dimensions: 22" L x 14" W x 9" H		
PSC-935-1001	Black	$204.99
PSC-935-1003	Orange	$204.99
PSC-935-1004	Yellow	$204.99
PSC-935-1005	Silver	$204.99
PSC-935-1006	Olive	$204.99
PSC-935-1007	Graphite	$204.99
960 Series Wheeled Cases, with foam Ext. Dimensions: 25.4" L x 20" W x 14.5" H		
PSC-960-1001	Black	$396.99
PSC-960-1003	Orange	$396.99
PSC-960-1004	Yellow	$396.99
PSC-960-1007	Graphite	$396.99

plasticase NANUK PROFESSIONAL PROTECTIVE CASES

NANUK Genuine Accessories

NANUK makes a ton of accessories for your new case. Two of the most popular are its TSA Combination Padlock and Neoprene Shoulder Strap. The padlock has a three-digit combination key and is TSA-approved. A visual indicator on the lock lets you know if the TSA inspectors opened your case. The adjustable shoulder strap features padded foam for comfort. Metal buckles contribute to the strap's durability.

PSC-900LOCKNANUK Combination Padlock $30.99

PSC-900-STRAP Neoprene Strap $30.99

DeoxIT® D5 Contact Cleaner

DeoxIT D5 has become synonymous with electrical cleaning solutions, and for good reason. When sprayed on an electrical contact, it dissolves oxidation and corrosion to improve conductivity. The solution fills in microscopic gaps, essentially resealing the original metal. That makes DeoxIT D5 ideal for connectors, relays, bulb/fuse receptacles, pots, cartridge slots, etc. In RF applications, DeoxIT D5 has been shown to reduce arcing, RFI and connector wear. It's safe for plastics and dries without a residue.

CAG-D5S-6 DeoxIT® D5 Contact Cleaner **$19.99**

DeoxIT® Cleaning Solutions from CAIG Laboratories

Regular care and maintenance of sensitive electronic gear is a crucial part of station performance. Cleaning products from CAIG Laboratories are specially formulated to be safe and effective on precision telecommunications equipment. They can rejuvenate old gear, making your audio clearer, signal stronger and your station more reliable.

DeoxIT® Gold G5 Spray
It's formulated specifically for gold-plated connectors, but works equally well on silver, brass and copper.

CAG-G5S-6 DeoxIT Gold G5 Spray.....**$27.99**

DeoxIT® DN5 Spray
This non-flammable contact cleaner spray dries quickly and won't drip, perfect for use around heat or on a crowded PCB.

CAG-DN5S-6N DeoxIT DN5 Spray **$32.99**

DeoxIT® D100 Spray
D100 is pure, 100% DeoxIT Cleaner for areas that need maximum lubrication. To reduce overspray, the can has a metered one-shot dispenser.

CAG-D100S-2 DeoxIT D100 Spray.....**$23.99**

DeoxIT® Screen Cleaner
Don't use harmful ammonia-based window cleaner on your electronic displays and screens, use this. It comes with a microfiber cloth.

CAG-CCS-503 DeoxIT Screen Cleaner **$10.99**

DeoxIT® Cleaning Kits

CAIG bundled together some of its most popular cleaners into handy kits. They're ideal for tossing in a Go-Kit or your glove box. If your club has an EMCOMM trailer, it's not a bad idea to stuff a kit in there, too.

DeoxIT® Emergency Survival Kit
This kit comes with the DN5 Spray, a D100 Pen, a D100 Squeeze Tube, plus three D1W wipes. It's handy if your need to recondition your HT or flashlight in an emergency.

CAG-K-DEO-ESK DeoxIT Emergency Kit.....**$44.99**

DeoxIT® Audio/Video Survival Kit
Do you have an aging home theater system? This kit will help you keep it in tip-top shape. It includes an assortment of cleaner sprays, swabs, brushes and wipes.

CAG-SK-AV35 DeoxIT Audio/Video Survival Kit.....**$42.99**

Jet-Lube® SS-30™

An absolute must-have when making metal-to-metal connections on outdoor gear. Jet-Lube SS-30 Pure Copper is both an anti-seize lubricant and a conductive termination compound. That means it will prevent galling and create a more reliable electrical connection.

JTL-12555 0.25 Lb. Brush-Top Can **$14.99**

JTL-12502 0.50 Lb. Brush-Top Can **$27.99**

3M Electrical Moisture Sealing Tape

Good up to 600 volts, use this tape to make your outdoor cables and connections watertight. It can also cover your terminals and works well for general household electrical connections, like floodlights and lampposts. The tape is self-fusing and resistant to UV rays and corrosion. It is sold in 2.5" by 10' rolls, or in handy 2.5" x 2.5" square pads.

TES-06147 Electrical Moisture Sealant Tape, 10' Roll **$23.99**

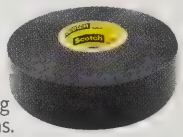
TES-06149 Electrical Moisture Sealant Pads, Box of 25 .....**$19.99**

Scotch® Super 88 Premium Vinyl Electrical Tape

Thicker and stronger than most vinyl electrical tapes, Super 88 is an excellent way to keep moisture out of your connectors. It insulates up to 600 volts and is resistant to sunlight, moisture, corrosion and chemicals. Plus, it's designed to perform well in temperatures from 0-220°F (-18-105°C).

TES-06143 Premium Vinyl Electrcial Tape... **$5.99**

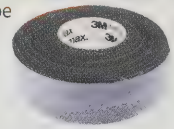
Scotch® Super 33+ Vinyl Electrical Tape



Scotch Super 33+ is highly conformable and stretchable, making it suitable for all weather applications. The tape combines PVC backing with excellent electrical insulation (up to 600V) to provide protective jacketing for cable splices. It is recommended as a protective overwrap for 3M Temflex™ Rubber Splicing Tape when used for RF connector weatherproofing.

TES-06132 Vinyl Electrical Tape..... **$5.59**

Temflex™ 2155 Rubber Splicing Tape



3M Temflex 2155 Rubber Splicing Tape is a conformable, self-fusing rubber electrical insulating tape. Designed for low voltage electrical insulating and moisture sealing applications, the rubber-based tape is capable of operating in temperatures up to 80 degrees C. It is compatible with synthetic cable and wire insulations, and is not corrosive to aluminum or copper conductors. For outdoor use, the tape should be protected from UV deterioration with an overwrap of Scotch Super 33+ Vinyl Electrical Tape.

TES-2155 Rubber Splicing Tape **$4.99**

Never-Seez®

- Prevents galling and galvanic corrosion
- Protects metal parts against rust, corrosion and seizure

DXE-NSBT8 Never-Seez, 8 Oz. Brush Top **$19.99**

DXE-NMCBT8 Never-Seez, Marine Grade, 8 Oz. Brush Top **$26.99**

Hazardous, limited to domestic UPS Ground shipping only.

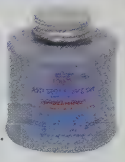
Penetrox™ A Electrical Joint Compound

Use Penetrox A Electrical Joint Compound to ensure a proper electrical connection between your aluminum and copper metal parts. This stuff works great on conductors, telescoping aluminum tubing, or other antenna and grounding components. Penetrox A Electrical Joint Compound ensures high conductivity at all voltage levels by preventing corrosion and oxidation. It is perfect for all aluminum-to-aluminum, aluminum-to-copper tubing or bare conductor connections; you should not use this on rubber or polyethylene insulated wire.

DXE-P8A Penetrox A Electrical Joint Compound, 8 Oz. Bottle.....**$16.99**

DXE-PENA-1-2 Penetrox A Electrical Joint Compound, 1/2 Oz. Tube **$6.79**

Anti-Seize Lubricant



Anti-Seize Lubricant is absolutely critical for tower and antenna building, and it's also important for assembling chassis. It can prevent galling, corrosion and seizing, which means your parts will come apart easily, even if they've been outside for years.

PTX-81343 Anti-Seize Lubricant, 1 Oz. Tube **$3.99**

PTX-80071 Anti-Seize Lubricant, 4 Oz. Brush-Top Bottle..... **$6.99**

Hazardous, limited to domestic UPS Ground shipping only.

Dielectric Grease

Isolate precision electrical connections and seal out moisture. There are hundreds of uses for Dielectric grease, ranging from coax connectors and spark plug boots to bulb sockets and panel feed-throughs.

PTX-22058 Dielectric Grease, 3 Oz. Tube **$9.99**

Hazardous, limited to domestic UPS Ground shipping only.

Dielectric Grease

Put this on your connectors to ensure moisture stays out and your continuity remains consistent. Dielectric grease will also keep you connectors from corroding and seizing, making them easier to separate, when the time comes.

LCT-37534 Dielectric Grease 0.33 Oz. Tube.....**$3.49**

RTV Silicone

Ensure your equipment stays watertight, but be careful: ordinary silicone shouldn't be used on aluminum. Instead use Ultra Black, it's safe for use on aluminum and can withstand temperatures up to 500 degrees F.

General-purpose clear silicone is a great way to seal up plastic housings and enclosures. Put a little dab in your bolt and screw recesses to keep rainwater out, too!

PTX-82180 Ultra Black RTV Silicone, 3.35 Oz. Tube..... **$5.99**

PTX-80050 Clear RTV Silicone, 3 Oz. Tube **$4.99**

Hazardous, limited to domestic UPS Ground shipping only.

ISO-TIP
Tools worth discovering

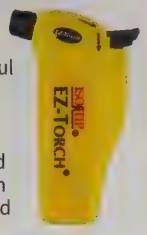
Rechargeable Soldering Irons

ISO-TIP offers cordless soldering irons that heat up quickly, provide high operating temperatures and have a long service life. Here are some of its most popular irons.

Butane Torches

A portable torch is handy for the Ham who does a lot of antenna work in the field. They deliver a pinpoint, 2,400° F heat source, useful for soldering tubing, melting ice off guy lines and cutting through plastic enclosures. They have a refillable butane tank and are compact enough to slip into your pocket.

The Smart Torch EZ features a child-resistant ignition system and a butane tank good for about 20 minutes of use. The Smart Torch Titan has an easily adjustable flame and a large butane tank good for 30 minutes of continuous operation.



ISO-7978

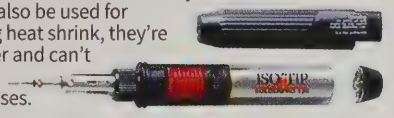
ISO-7978	Smart Torch EZ Portable Butane Torch	$19.99
ISO-9004*	Smart Torch Titan Portable Butane Torch	$11.99

*Due to shipping restrictions these torches ship without butane.

Butane Torches

As an alternative to ISO-TIP's battery powered options, these butane soldering irons are ideal if you're doing remote field work away from a charging source. Since they can also be used for brazing, cutting, de-icing and activating heat shrink, they're a smart choice if you're climbing a tower and can't carry a bunch of tools. The kits include the iron and multiple tips for different uses.

ISO-7977



ISO-7977	Pro 120 Butane Soldering Iron Kit	$72.99
ISO-9010*	Pro 90 Butane Soldering Iron Kit	$49.99

*Due to shipping restrictions these torches ship without butane.

Model 7700

As ISO-TIP's flagship iron, the 7700 is a well rounded iron for shop and shack use. It can be completely recharged in 3-4 hours, and will solder up to 125 joints on a single charge. The iron comes with a handy charging stand and a pair of interchangeable tips. Model 7700 is also available in a kit that includes more tips, solder, heat shrink tubing, flux, a butane torch, cleaning pad and a handy carrying case.

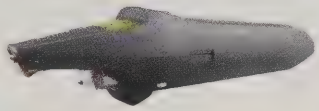
ISO-7700

ISO-7700	Model 7700 Rechargeable Soldering Iron	$50.99
ISO-7710	Model 7700 Rechargeable Soldering Iron Kit	$99.99

Model 7800

This iron boasts the fastest recharge time of any ISO-TIP iron. It can be fully recharged in an hour and resting it in its stand for quick charges between uses means it can last even longer.

ISO-7800	Model 7800 Rapid Charge Soldering Iron	$69.99



Model 7904

Packing a long life battery, Model 7800 is capable of over 30 minutes of continuous duty. It's perfect for field use, where you don't have easy access to a charger.

ISO-7904	Model 7904 Long Life Soldering Iron	$71.99

NTE ELECTRONICS, INC.

Heat Shrink Sleeves

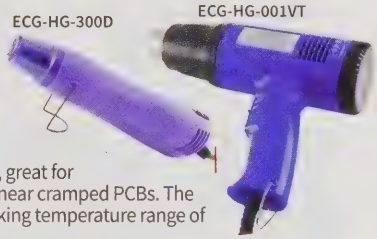
These tough, durable heat shrink sleeves are an excellent choice for sealing and insulating your cable runs. They'll work inside and outside of your shack, including in direct-burial and submersible applications.

Part Number	Diameter(s)	Length	Quantity	Color	Price
Single Sections, Thick Wall, 3:1 Shrink Ratio					
NTE-47-404013-BK	1.57"	48"	1	Black	$31.99
NTE-47-400328-BK	1.06"	48"	1	Black	$27.99
NTE-47-400206-BK	0.79"	48"	1	Black	$20.99
NTE-47-400124-BK	1.27"	48"	1	Black	$16.99
Assortment Packs, Thin Wall, 2:1 Shrink Ratio					
NTE-HS-ASST-1	3/32"-1/2"	6"	24	Black	$7.99
NTE-HS-ASST-2	1/16"-1/2"	2.5"	158	Black	$14.99
NTE-HS-ASST-3	1/16"-1/2"	2.5"	158	Red	$15.99
NTE-HS-ASST-4	1/16"-1/2"	4"	24	Black	$6.99
NTE-HS-ASST-5	1/8"	6"	10	Assorted	$6.99
NTE-HS-ASST-6	3/16"	6"	10	Assorted	$6.99
NTE-HS-ASST-7	1/4"	6"	10	Assorted	$6.99
NTE-HS-ASST-8	3/8"	6"	10	Assorted	$6.99
NTE-HS-ASST-9	1/16"-3/8"	4"	160	Assorted	$18.99
NTE-HS-ASST-10	1/16"	6"	10	Assorted	$6.99
NTE-HS-ASST-11	3/32"	6"	10	Assorted	$6.99
NTE-HS-ASST-12	1/2"	6"	10	Assorted	$7.99
Assortment Pack, Dual Wall, 3:1 Shrink Ratio					
NTE-HS-ASST-13	1/8"-3/4"	4"	72	Black	$27.99

ECG®

Heat Guns and Accessories

ECG-HG-300D ECG-HG-001VT



You wouldn't use a butter knife as a screwdriver, so don't use a hair dryer as a heat gun. With an adjustable range of 250 to 1,100 degrees F and a 2-speed motor, the HG-001VT is perfect for hobbyists. ECG also makes a Miniature Heat Gun, great for installing heat shrink tubing into tight chassis or near cramped PCBs. The Mini Heat Gun has a two-speed motor and a working temperature range of about 480 to 660 degrees F.

For more frequent use, get an Industrial Grade ECG Heat Gun. They boast an adjustable air intake, a sturdy toggle switch, replaceable motor brushes and a six-foot heavily shielded cord. The Industrial Grade guns all have a mica heating element for extra long service lives.

ECG-HG-001VT	Economy Heat Gun	$49.99
ECG-HG-300D	Mini Economy Heat Gun	$25.99
ECG-HG-005	Industrial Grade Heat Gun, 500-750° F	$159.99

ECG-HG-0010 ECG-HG-0013 ECG-HG-0014 ECG-HG-0015

Accessories

ECG-HG-0010	3/4" Reflector for Industrial Grade Heat Guns	$11.99
ECG-HG-0011	2" Reflector for Industrial Grade Heat Guns	$11.99
ECG-HG-0013	7/8" Heat Concentrator for Economy Heat Gun	$5.99
ECG-HG-0014	3/8" Heat Concentrator for Economy Heat Gun	$5.99
ECG-HG-0015	Shrink Tube Reflector for Economy Heat Gun	$5.99

velleman projects

Learn-to-Solder and Soldering Starter Kits

VEL-EDU03U

Soldering is one of the fundamental skills required for any sort of electronic tinkering. These kits from Velleman are excellent tools to teach anyone the proper solder techniques. The two kits both include a soldering iron, but if you've already got the components, Velleman makes a nice beginner's iron available separately.

Velleman also offers a more basic kit that demonstrates the basics of electronic circuits using real discrete components—not toys or "play" pieces. These kits are a great way to get anyone started on an electronics hobby.

VEL-EDU03U	Start to Solder Educational Kit, with Iron and Minikits	$44.99
VEL-K-STARTULF	Soldering Starter Kit, with Iron, Cutters, and PCB	$30.99
VEL-EDU01	Solderless Educational Starter Kit, with 10 Projects	$24.99
VEL-K-SOLD2NU	Soldering Set, with Iron, Stand, Desolder Tool and Solder	$18.99

SUMMIT RACING EQUIPMENT

Shrink Sleeve Assortment

Way better than standard vinyl heat-shrink tubing (which can crack and tear), this tubing is made with professional-grade polyolefin. That helps it better withstand both time and the elements. This kit includes over sixty 6 inch tubes ranging from 1/8" to 3/4" ID, all housed in a compartmentalized case, so everything stays neat and tidy.

SUM-890092	Shrink Sleeve Assortment	$19.99

DX ENGINEERING

Adhesive Lined Heat Shrink Tubing

Insulate and protect your connections without the hassle of tape, using DX Engineering Adhesive Lined Heat Shrink Tubing. It's also perfect for repairing nicks in a cable jacket or for dressing-up your in-shack runs. Both packs include 20 individual 1.5" lengths of tubing, each with a 3:1 shrink ratio.

DXE-HS38-20	Heat Shrink Tubing, 0.375" OD	$7.99
DXE-HS12-20	Heat Shrink Tubing, 0.500" OD	$9.99

Orders over $99 qualify for FREE standard shipping—see pg. 76 for details.

American Beauty

Heavy Duty Soldering Irons

Well suited for assembly line electronic production, these irons can handle constant use. They feature an innovative compression-wound heating element that can maintain a constant temperature. The 100-250 watt irons include a diamond tip; the tip is sold separately for the AMB-3178LT-300.

AMB-3138-100 Heavy-Duty Iron, 100 Watts **$116.88**
AMB-3138-150 Heavy-Duty Iron, 150 Watts **$116.88**
AMB-3138X-175 Heavy-Duty Iron, 175 Watts **$125.63**
AMB-3158-200 Heavy-Duty Iron, 200 Watts **$160.82**
AMB-3158X-250 Heavy-Duty Iron, 250 Watts **$169.66**
AMB-3178LT-300 Heavy-Duty Iron, 300 Watts **$156.91**

Pencil-Style Soldering Irons

Professional quality irons, priced for the hobbyist. You can rely on them to provide consistent temperatures for all of your projects. They're comfortable and maneuverable, ideal for tight chassis and precise solder joints.

AMB-3110-30 Pencil-Style Iron, 30 Watts **$60.52**
AMB-3112-60 Pencil-Style Iron, 60 Watts **$68.43**

More Soldering Irons Online - You'll find a huge range of soldering irons available at DXEngineering.com. You'll be able to select the perfect iron for your bench online.

American Beauty

Dri-Wick Desoldering Braids

Whether you're working on a PCB or point-to-point circuits, Dri-Wick Desoldering Braids will make desoldering jobs much easier (and much safer for your gear). This 100 percent copper wick is coated with flux, which will help the solder pull cleanly and quickly off of the component.

Part Number	Braid Width	Spool Length	Price
AMB-484-1G	.035"	5'	$2.98
AMB-484-2G	.055"	5'	$3.19
AMB-484-3G	.075"	5'	$3.40
AMB-484-4G	.098"	5'	$3.61
AMB-484-5G	.130"	5'	$3.83
AMB-485-8C	.093"	8'	$5.10

kester CONNECTING INNOVATION™

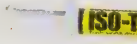
Flux Pen

Apply your solder flux with ease and precision, and keep your PCBs clean and attractive. Kester 186 is an RMA-type flux that retains high thermal stability, and any residue left after soldering is typically OK for most electrical applications.

KTR-83-1000-0186 Flux Pen **$8.99**

ISO-TIP Tools worth discovering

Silver Bearing Solder Paste

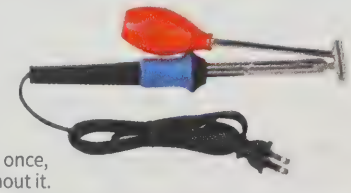


Make your tough soldering job easier. Simply use the syringe to apply ISO-TIP's Solder Bearing Paste to your solder joint, hit it with your iron and the solder will flow right in—no mess and no clumsy wire feeding. It works with all ferrous and non-ferrous materials, including steel, bronze, chrome, silver and more. That means its perfect for wires, cable, connectors, plumbing/piping, and more. Read how it works at DXEngineering.com.

ISO-7459 Silver Bearing Solder Paste **$9.99**

ECG

De-Soldering Iron



Here's an easy way to remove solder from a PCB without damage. It's essentially a soldering iron with a de-soldering bulb connected via a specially designed tip. Use it once, and you'll wonder how you ever worked without it.

ECG-J-045-DS De-Soldering Iron **$23.99**

CAIG LABORATORIES, INC.

DeoxIT® Rosin Soldering Flux

Formulated to improve solder flow, this non-corrosive flux can be wiped off easily without leaving a residue.

CAG-RSF-R80-2 DeoxIT Rosin Soldering Flux **$8.99**

kester® CONNECTING INNOVATION™

Solder

Kester has over a century of experience making the finest quality solder on the market. This solder is ideal for sensitive electronic and telecommunication equipment. This chart is just the tip of the iceberg, visit DXEngineering.com for more solder options.

Part Number	Type	Gauge	Melting Point (F)	Price
Pocket-Pak				
KTR-83-7145-0415	Rosin-Core	24	354°	$4.99
KTR-83-4000-0000	Rosin-Core	20	361°	$3.99
KTR-83-7068-1402	Rosin-Core, Lead Free	20	425°	$5.99
Kwik-Draw				
KTR-83-3000-0000	Rosin-Core	18	361°	$5.99
1 Lb. Spool				
KTR-24-6337-8817	245, No-Clean	14	361°	$34.99
KTR-24-6337-6401	331, Water Soluble Flux	24	361°	$45.99
KTR-24-6337-6411	331, Water Soluble Flux	14	361°	$33.99
KTR-24-6040-0027	44, Rosin-Core	20	361°	$35.99
KTR-24-7068-7601	275, Lead-Free, No-Clean	20	425°	$95.99

ECG

Butane Soldering Kit

If you've got a base station antenna, then you already know how handy a portable soldering iron is. The J-700KT can be used as a soldering iron, hot knife, torch or heat gun. That means it's perfect for replacing connectors, repairing solder joints, or even melting ice from guy lines and antenna elements. It reaches operating temperature in seconds, and you can set the temperature from 410 to 850 degrees F, equivalent to a 25-80 watt electrical iron. (Torch operation reaches 2,500 degrees F.) At its mid-level setting, a single canister of butane will last for about 120 minutes of continuous use.

ECG-J-700KT Butane Soldering Kit **$65.99**
ECG-JT-002 Replacement Chisel Tip for J-700KT **$11.99**

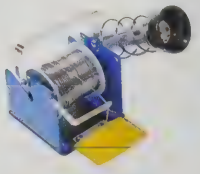
ECG®

Pencil Style Soldering Irons

These are excellent irons for your shack, toolbox or road-kit. They're available in multiple temperature ratings and boast a precision conical tip. A folding iron stand is included.

Part Number	Watts	Max Temp (F)	Tip	Price
ECG-J-012	12	680°	Needle Point Conical	$20.99
ECG-J-020	20	950°	Needle Point Conical	$21.99
ECG-J-025	25	464°	Needle Point Conical	$12.99
ECG-J-040	40	750°	Needle Point Conical	$15.99
ECG-J-060	60	860°	Conical	$18.99
ECG-J-060VT	25-60 (adj.)	860°	Conical	$26.99

velleman projects



VEL-VTSS4NU VEL-STAND60 VEL-VTSS5U

Soldering Iron Stations

If you're like us, then your iron probably spends more time in your hand than in a cradle. Even so, a good soldering station can help you stay organized and finish jobs faster.

VEL-STAND60 Soldering Stand, with Holder, Sponge and Solder Reel **$12.99**
VEL-VTSS4NU Soldering Station, Adjustable Temp., with 45 W Iron **$24.99**
VEL-VTSS5U Soldering Station, Adjustable Temp., with 50 W Iron **$59.99**

ECG® New!

Soldering Stations

For improved productivity and convenience, choose a soldering station from ECG, featuring either analog or digital readout controls. These electronically pulse-powered, temperature-controlled low wattage irons bring a completely new range of professional-level soldering results to hobbyists looking for superior results. ECG Soldering Stations are corded, AC powered and include a convenient iron holder with a built-in sponge pad for easy tip cleaning. Featuring a weighted base for added stability, they're ideal for general electronic soldering and repair, connector and cable terminations, kit building and more. They're available in 50 and 75 watt standard control versions or the digital 75 watt model.

ECG-J-SSA-1	75 Watt Standard Temperature-Controlled Soldering Station	$57.99
ECG-J-SSA-2	50 Watt Standard Temperature-Controlled Soldering Station	$35.99
ECG-J-SSD-1	75 Watt Digital Temperature-Controlled Soldering Station	$72.99

PANAVISE®

Vises and Accessories

The next best thing to an extra pair of hands, these vises and accessories allow you to put your project in virtually any position. That makes complex soldering jobs and wire routing much easier, especially in tight chassis. Many styles are available to suit your specific needs.

PVP-301	Original PanaVise, Nylon Jaws, 2.25" Jaw Width, Standard Base	$54.99
PVP-380	300-Series Vacuum Base, Accepts Many Head/Mount Combos	$44.99
PVP-203	PanaVise Jr. Head, .875" Width, 5/8" Shaft for 300-Series Base	$24.99
PVP-381	Original PanaVise, Nylon Jaws, 2.25" Jaw Width, Vacuum Base	$74.99
PVP-201	PanaVise Jr. Mini-Vise, 2.875" Jaw Width, Standard Base	$29.99

velleman projects

Helping Hands, Lamps and Magnifiers

Are your friends growing tired of being enlisted as your second set of hands and eyes? Velleman's got some simple solutions to make precision electronics work easier.

VEL-VTHH4	Helping Hands with 2-Power Magnification	$14.99
VEL-VTHH3	Helping Hands, with Magnifier and LED Light	$21.99
VEL-VTLAMP2BNU	Magnifying Swing Arm Lamp, Black	$53.99
VEL-VTLAMP2WNU	Magnifying Swing Arm Lamp, White	$59.99
VEL-VTMG5	Gooseneck Magnifier	$11.99

Zip Ties

Quite possibly the most versatile tools in your shack, you can use these ties for cable management, field repairs, securing gear and more. They are made in UV-resistant black and come in several sizes.

DXE-1860-100	Zip Ties, 4", Pack of 100	$4.99
DXE-1861-100	Zip Ties, 8", Pack of 100	$5.99
DXE-1862-100	Zip Ties, 11", Pack of 100	$8.99
DXE-1863-100	Zip Ties, 14", Pack of 100	$9.99

Braided Wire Wraps

Use these wraps to add extra protection to your wires, tidy up a crowded chassis, improve cable management or to add a slick custom look to your homebrew projects. They're made from a heat resistant, woven polymer fiber that's split lengthwise so you can easily slip in your wire bundle. The wraps come in different lengths and diameters.

Part Number	Diameter	Length	Price
SUM-890340	1/4"	20'	$16.99
SUM-890341	1/2"	10'	$16.99
SUM-890342	3/4"	6'	$13.99
SUM-890343	2"	4'	$26.99

SUMMIT RACING EQUIPMENT

Rip-Ties®

RIP-TIE FUZZY CABLE WRAPS™

Good cable management is the key to a well-organized shack. These reusable Rip-Ties let your tidy up those loose cables and organize your cable runs. You can also use these Rip-Ties to neatly store spare cables and antenna wire for your portable/Field Day station. Sold individually.

Part Number	Size	Color	End	Price
DXE-H-06-1PK-RD	9" x 1"	Red	Nylon Tie	$7.99
DXE-H-06-1PK-BU	9" x 1"	Blue	Nylon Tie	$7.99
DXE-HB-06-1PK-RD	9" x 1"	Red	Buckle	$9.99
DXE-HB-06-1PK-BU	9" x 1"	Blue	Buckle	$9.99
DXE-RLH0951PK-BK	9.5" x 1"	Black	Rip-Lock	$9.99

NTE ELECTRONICS, INC.

Hook and Loop Cable Ties

These straps are reusable and are made from soft material to prevent damaging the cable jacket. They're good for indoor and outdoor use and are sold in packs of 10. More color options are available at DXEngineering.com.

Part Number	Length	Width	Weight Rating	Color	Price
NTE-04-0533HL0	4.92"	0.47"	33 Lbs.	Black	$6.99
NTE-04-0533HLMC	4.92"	0.47"	33 Lbs.	Assorted	$6.99
NTE-04-0640HL0	5.91"	0.47"	40 Lbs.	Black	$6.99
NTE-04-0640HLMC	5.91"	0.47"	40 Lbs.	Assorted	$6.99
NTE-04-0840HL0	7.87"	0.47"	40 Lbs.	Black	$7.99
NTE-04-0840HLMC	7.87"	0.47"	40 Lbs.	Assorted	$7.99
NTE-04-1040HL0	9.45"	0.51"	40 Lbs.	Black	$7.99
NTE-04-1040HLMC	9.45"	0.51"	40 Lbs.	Assorted	$7.99

NTE-04-0750ID0

NTE-04-0418ID9

NTE ELECTRONICS, INC

NTE-04-0750ID9

Flag and ID Cable Ties

Cable management 101: label everything! These handy ties help you clean up your wiring and make it easy to install or remove gear. Identifying your cables also speeds up the troubleshooting process. They're sold in packs of 100.

NTE-04-0418FL9	Flag Cable Ties, 4.3" Long	$10.99
NTE-04-0418ID9	Flag Cable Ties, 4" Long	$9.99
NTE-04-0750ID0	ID Cable Ties, 7.8" Long, Black	$17.99
NTE-04-0750ID9	ID Cable Ties, 7.8" Long, Clear	$17.99
NTE-04-1450ID9	ID Cable Ties, 14.1" Long, Clear	$36.99

NTE-04-0418FL9

3M

Write-On Wire Marker Tape Dispenser

Quickly decipher that bird's nest behind your desk! This tape from 3M is designed for identifying cable runs, but you can also use it for dial settings, antenna positions, HTs, conduit, plumbing, parts bins and practically anything around the house. The vinyl tape will last for years, yet won't leave a nasty residue when you decide to peel it off later. It includes a permanent marker too.

TES-SLW	Write-On Wire Marker Tape Dispenser	$44.99

DXEngineering.com is loaded with detailed photos, specs, videos, and more!

DXE-UT-KIT4

DX ENGINEERING

Coaxial Cable Tool Kits

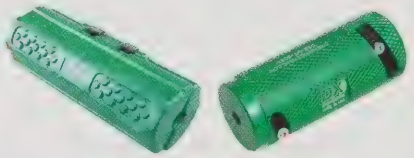
Carry everything you need to prep and install soldered connectors on your coaxial cable. The Basic Kit is tailored for RG-213 and RG-8 cable with PL-259 connectors. It includes a stripping tool, gripping tool, specialized PL-259 assembly tool, cable shears and a carrying case.

Upgrading to the Complete Kit gives you the tools to work with RG-8/X size cable and Type N connectors. It comes with specialized stripping, gripping and assembly tools. You'll also get a braid trimmer and replacement blades for the stripping tool.

If you've been using your tool case a lot and the foam is starting to disintegrate, DX Engineering now offers replacement foam.

DXE-UT-KIT3	Basic Coax Tool Kit	$139.99
DXE-UT-KIT4	Complete Coax Tool Kit	$229.99
DXE-UT-CASE-FOAM	Replacement Foam for the Basic/Complete Case	$23.99

DX ENGINEERING



DXE-8X-PREP-P

Coaxial Cable Prep Tool Combos

These combos make working with coaxial cable much easier. They include one of our Coaxial Cable Grippers and a perfectly matched Coaxial Cable Stripper. For solder-on PL-259 connectors.

DXE-8X-PREP-P	Prep Tool Combo, for RG-8X and Similar-Size Cable	$79.98
DXE-8U-PREP-P	Prep Tool Combo, for RG-8U and Similar-Size Cable	$79.98

DX ENGINEERING

Connector Assembly Tools

These assembly tools allow simple threading of connector bodies onto the vinyl jacket of RG-8/U, RG-213/U and other similar size cables. The DXE-UT-80P assembly tool is for PL-259 connectors, and the DXE-UT-80N assembly is for two-piece Type N connectors. Assembly is simple. Strip the cable with the DXE-UT-8213 Cable Stripping Tool, then use the appropriate connector assembly tool and thread the connector body onto the stripped cable end. A visual guide at the end of the tools allows easy viewing of the cable center conductor for proper depth. You get a perfect and easy connector installation every time.

DXE-UT-80P	Connector Assembly Tool for PL-259 Connectors, Black	$29.99
DXE-UT-80N	Connector Assembly Tool for 2-piece Type N Connectors, Blue	$29.99

DX ENGINEERING

Coax Cable Strippers for 50 Ω Cable

These DX Engineering strippers prepare 50 Ω coax cable for installation of a solder-on PL-259 connector.

- Work on foam or solid dielectric cable
- Precision, two-step operation
- No nicks or scratches to conductor
- Premium, long-lasting cutter blades

DXE-UT-8213	Coax Cable Stripper for RG-8, RG-213, 9913 and Similar Size Cable, Red	$64.99
DXE-UT-808X	Coax Cable Stripper for RG-8X and Belden 9258 Cable, Green	$64.99
DXE-UT-8213LR	Coax Cable Stripper for RG-213, RG-8 and Similar Size Cable, Purple	$79.99
DXE-UT-RB-HD*	Pack of Two Heavy-Duty Replacement Blades for UT-8 Tools	$19.99

*Also fits Cablematic UT-8000

DX ENGINEERING

Cable Grippers

These hand grippers are the perfect complement to DX Engineering's Coaxial Cable Prep Tools. They help you securely hold your cable while you're doing the proper prep. They're also effective for holding the cable as you're pulling it off a spool or out of a box for a run. These grippers have been redesigned to incorporate a hinge between the two halves. This makes it easier to store and manipulate the grippers.

DXE-CGH-8U	Cable Gripper for RG-8U Size Cable, Red	$14.99
DXE-CGH-8X	Cable Gripper for RG-8X Size Cable, Green	$14.99

SUMMIT RACING EQUIPMENT

Spring-Loaded Wire Stripping Tool

Use it once, and you'll wonder how you ever worked without it. Just insert the wire, squeeze the handle, and listen for the click—another perfect wire stripping job performed in about 2 seconds. And now Summit Racing's made it even better. The redesigned tool is more rugged, with heavy-duty teeth and increased adjustability. A wire length guide helps you make uniform strips, and the built-in wire cutter and crimper help you complete the job. It handles 24- to 10-gauge wire.

SUM-900031R	Spring-Loaded Wire Stripping Tool	$18.99

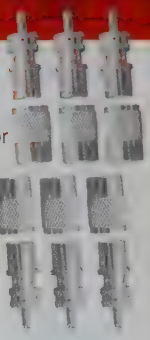
SUMMIT RACING EQUIPMENT

Long Reach Pliers

This handy tool is perfect for installing and removing connectors in hard-to-reach places and on crowded panels. The vinyl covered jaws are well suited to both Type N and PL-259 connectors, while the no- slip grip gives you plenty of leverage. Use these pliers and you'll avoid cramped hands and fatigued fingers.

SUM-900071	Long Reach Pliers	$8.99

DX ENGINEERING



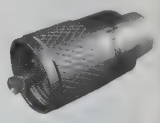
Silver/PTFE Coax Connectors

This superior solder-on PL-259 connector uses silver plated outer and inner conductors and a PTFE insulator. The connector has very low loss and high electrical breakdown. It fits directly on RG-8, RG-213, 9913 and other cables with a nominal .405 inch OD jacket size.

Use a DXE-UG175 reducer with this connector to fit RG-58A/U and/or LMR195 coax, and a DXE-UG176S-6 reducer to fit RG-8X coax.

DXE-PL259-6	PL-259 Connector, Pack of 6;	$17.99
DXE-UG176S-6	RG-8X Reducer for PL-259, Silver Plated, Pack of 6	$6.59
DXE-UG175S-6	RG-58 Reducer for PL-259, Silver Plated, Pack of 6	$5.79

Amphenol® RF



PL-259 Connector

This PL-259 from Amphenol RF is a solder-on connector sized precisely for 50 Ω RG-8, RG-9, RG-213 and RG-225 coaxial cable. It's tailored to 0-300 MHz and will handle 500 volts (peak).

AML-83-1SP-6	PL-259 Connector, Pack of 6	$29.99

Coax Cable Cutters

CHANNEL LOCK

These high-quality cable cutters have blades designed to cut coaxial cable cleanly. They will not crush the cable like diagonal side cutters—the cut end of the cable is cleanly cut, ready for stripping and connector assembly. The cutters can handle aluminum up to 4/0-gauge and soft copper cable up to 2/0-gauge.

CNL-911	Coax Cable Cutters	$22.99

DX ENGINEERING

Coaxial Cable Stripper

These strippers are simple to use and they deliver a professional, repeatable prep job every time. They feature an adjustable blade that is easy to replace. No special cartridge necessary.

DXE-15035	Stripper for RG-8, RG-213	$23.99
DXE-15039-C	Replacement Blades, Pack of 6	$6.99

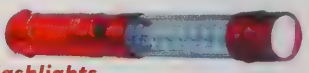
Precision Shear Side Cutters

These DX Engineering Precision Shear Side Cutters are the perfect tool for trimming loose strands of copper braid, trimming individual strands of the center conductor.

- Low-profile, general purpose cutter
- Superior blade bypass shear cutting action
- Better cuts with half the effort
- Reduced mechanical shock delivered to the work
- Flush cuts soft wire up to 20 AWG (0.8mm)

DXE-170M	Precision Shear Side Cutters	$11.25

SMITTYBILT



Glove Box LED Flashlights

Thanks to the benefits of LED efficiency, these flashlights put out plenty of light without gobbling up batteries. They're actually two lights in one: a 16 LED array floodlight and a pinpoint 8 LED spotlight. The flashlights have an aluminum chassis and a magnetic end with a handy extra hook for hanging. They use 3 AA batteries.

SMT-L-1407BK	LED Flashlight, Black	$16.99
SMT-L-1407BU	LED Flashlight, Blue	$16.99
SMT-L-1407RD	LED Flashlight, Red	$16.99
SMT-L-1407SL	LED Flashlight, Silver	$16.99

DXE-UT-KIT-CRMP2

DX ENGINEERING

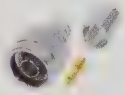
Ultra-Grip 2 Crimp Connector Hand Tool Kit

This kit includes everything you need to make professional-quality crimps on coaxial and Powerpole® connectors. The ratcheting steel crimper is designed to fit ergonomically in your hand to reduce fatigue. The kit comes with the Ultra-Grip 2 Tool, 5 crimp dies, shears, braid trimmer, Allen wrench and case. You get crimp dies precisely sized for RG-8U, LMR-400, RG-8X and LMR-240 type cables, along with specialized dies for Powerpole 15A, 30A and 45A connectors, as well as insulated and un-insulated wire terminals.

The Ultra-Grip 2 Crimp Tool, interchangeable dies and specialized carrying case are also available separately. You can expand the functionality of your UT-CRIMP and UT-CRMP2 Crimp Tool with extra crimp dies. They're made to handle various common crimp connector types in several sizes.

DXE-UT-KIT-CRMP2	Complete Kit, 5 Die Sets	**$174.99**
DXE-UT-CRMP2	Crimp Tool for RG-8U/ LMR-400 Size Cable	**$55.98**
DXE-UT-CRMP2-8X	Crimp Tool for RG-8X/ LMR-240 Size Cable	**$55.98**
DXE-UT-CRMP2-PWR	Crimp Tool for Powerpole® 15, 30, 45A	**$55.98**
DXE-UT-DIE-INS	Crimp Die for Insulated 22-10 AWG Terminals	**$21.99**
DXE-UT-DIE-UNIS	Crimp Die for Uninsulated 22-8 AWG Terminals	**$21.99**

Amphenol® Connex



AML-172102H-2

Solderless Crimp-On Connectors

DX Engineering carries Amphenol Connex connectors to ensure your gear is operating at its full potential. Depending on the type, these crimp connectors feature nickel or silver plated bodies, gold or silver plated center pins and PTFE, or phenolic insulators. You can also find the proper crimping/stripping tools at DXEngineering.com.

Part Number	Connector	Fits Cable	Price
AMP-112116	BNC Male	RG-58, LMR-195	**$2.15**
AML-172100-2	Type N Male Two Pack	RG-58, LMR-195	**$11.99**
AMP-172135	Type N Male	RG-8X, LMR-240	**$6.62**
AML-172102H-2	Type N Male Two Pack	DXE-8U 400MAX LMR-400	**$17.99**
AML-182100-4	UHF Male Four Pack	RG-58, LMR-200	**$16.99**
AML-182102-4	UHF Male Four Pack	RG-213, RG-8, RG-393	**$22.99**
AML-18211510-4	UHF Male Four Pack	RG-8X, LMR-240	**$29.99**
AML-18213010-4	UHF Male Four Pack	DXE-8U, DXE-400MAX, LMR-400	**$33.99**

DX ENGINEERING

Coaxial Cable Prep Tools for Crimp Connectors

Tools to easily and properly prepare your coaxial cable for a DX Engineering or Amphenol Connex crimp connector and to ensure optimal station performance. Available for many cable types.

Just place the end of your coax against the internal stop, close the cutter and twist. Cable is cut to the correct measurement. Place the coax in the other side of the cutter, close it and withdraw the cable—your coax jacket is now slit for easy removal of the cut portions. Select from a complete kit, or buy each cutter separately.

Part Number	Cable Type	Connector Type	Price
DXE-UT-240C-N1	8X (0.242" OD)	Type-N and BNC	**$39.99**
DXE-UT-240C-P1	8X (0.242" OD)	PL-259	**$39.99**
DXE-UT-405C-N1	8U/400 (0.405" OD)	Type-N and BNC	**$39.99**
DXE-UT-405C-P1	8U/400 (0.405" OD)	PL-259	**$39.99**
DXE-UT-KIT-CC1	Complete Kit with Tools Above and Case		**$249.99**

Next Generation Crimp/Solder UHF Male Connectors

DX ENGINEERING

Taking a "better mousetrap" approach, DX Engineering designed a revolutionary patented Next Generation PL-259 connector. It combines the best qualities of solder and crimp technologies for unparalleled reliability and the lowest loss. The crimp shield provides a 360° electro-mechanical connection, while the hand-soldered center pin ensures superior RF continuity. The connector features a silver-plated shell, body and center pin. A double-knurled body surface makes the PL-259 easier to install, too. It's a must-have crimp-style PL-259 for any coaxial cable, especially coax cables that use foil shields.

These are the same connectors found on all DX Engineering pre-made cable assemblies equipped with a PL-259; Essential for the lowest-loss connection possible.

DXE-PL259CS8U-6

DXE-PL259CS8X-6

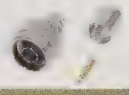
Part Number	For Cable Type	Quantity	Price
DXE-PL259CS8U-6	RG-8U, LMR-400	6	**$24.99**
DXE-PL259CS8U-12	RG-8U, LMR-400	12	**$43.99**
DXE-PL259CS8U-24	RG-8U, LMR-400	24	**$79.99**
DXE-PL259CS8X-6	RG-8X, LMR-240	6	**$26.99**
DXE-PL259CS8X-12	RG-8X, LMR-240	12	**$47.99**
DXE-PL259CS8X-24	RG-8X, LMR-240	24	**$87.99**

Amphenol® RF

Connectors and Adapters

Before you buy new gear, make sure you have the right adapters to install it. Amphenol RF makes must-have connector solutions. Spend less time building cable and more time on the air.

AML-172102-2



AML-112533-4

AML-000-2900

Part Number	Connector End 1	Connector End 2	Design	Price
AML-112533-4†	BNC Male	RG-8X, LMR-240	Straight	**$9.55**
AML-000-2900	BNC Male	SO-239	Straight	**$25.99**
AML-31-28	BNC Female	PL-259	Straight	**$23.99**
AML-000-4400	Type N Male	SO-239	Straight	**$21.99**
AML-83-877	PL-259	PL-259	Barrel	**$41.99**
AML-172123-2*	Type N Female	Type N Female	Straight	**$22.99**
AML-172102-2*	Type N Male	Crimp	For RG-213, -8, -393	**$14.99**
AML-83-1J-2*	SO-239	SO-239	Barrel	**$31.99**
AML-83-1R-2*	Solder Terminal	SO-239	Chassis Mount	**$11.99**
AML-83-798-2*	Solder Terminal	SO-239	Chassis Mount	**$19.99**
AML-83878RFX-2*	Solder Terminal	SO-239	Bulkhead	**$14.99**
AML-83-1T	PL-259	SO-239 (x 2)	Tee	**$23.99**
AML-83-1AP-2*	PL-259	SO-239	Right Angle	**$38.99**
AML-082-97RFX-2*	Type N Female	4-Hole Flange	Chassis Mount	**$13.99**

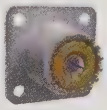
*Sold in a package of two † Sold in a package of four

AML-000-4400

AML-83-877

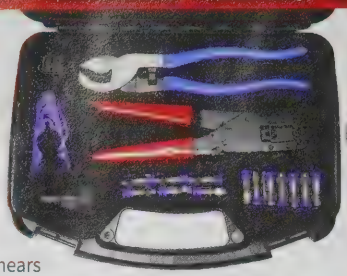
AML-83-1J-2

AML-83-1R-2



AML-83-798-2

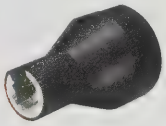
AML-83878RFX-2



F Connector 75 Ω Cable Prep Tool Kit

- Case
- Coaxial cable shears
- Stripping tool for F6 cable
- Snap-N-Seal® watertight F Connectors (25 total)
- SNS connector compression tool
- F Connector tightening tool

DXE-UT-KITF Prep Kit for F6 & 6UF Cable; **$164.99**
DXE-F6-CASE Case Only **$25.99**



F Connector Tightening Tool

This tool installs and removes F Connectors in high density and hard to reach locations. It helps ensure proper connections to reduce the possibility of loose connector related problems. It is the only tool that works with bent coax. Only finger force is required.

DXE-CIT-1 F Connector Tightening Tool ... **$12.99**

6UF 75 Ω Dual Shield Coax

We highly recommend using top quality 75 Ω flooded RG-6 coax for direct-bury applications. Flooded cables automatically seal small accidental cuts or lacerations of the jacket, plus it prevents shield contamination from moisture ingress.

Our 6UF cable features an 18 AWG copper core, making it extremely strong and durable. This low-loss cable features dual shields and an 83% velocity factor. It is RoHS compliant.

DXE-6UF-CTL F-6 Style Direct-Bury Coax ..... per foot **$0.19**
DXE-6UF-1000 F-6 Style Direct-Bury Coax, 1,000' Spool **$149.99**

RG400 High Isolation Coaxial Cable Assemblies

Made to military-spec (MIL-C-17), this RG400 provides extremely high noise and signal isolation and will handle up to 8 kW. It boasts an efficient, stranded silver covered copper center conductor and double silver covered copper braided shields. The cable is wrapped in a tough, waterproof fluorinated ethylene propylene jacket. It terminates in silver plated Amphenol 831SP PL-259 connectors with UG-175 reducers. The cable has a 0.195" OD.

DXE-RG400R003 RG400 High Isolation Coaxial Cable, 3' **$47.99**
DXE-RG400R006 RG400 High Isolation Coaxial Cable, 6' **$59.99**
DXE-RG400R010 RG400 High Isolation Coaxial Cable, 10' **$76.99**

Snap-N-Seal® Watertight Connectors

Designed for harsh environments, DX Engineering's exclusive Type F coax connectors offer high performance signal leakage protection. The Snap-N-Seal system prevents moisture from migrating into the connection, while the 360 degree radial compression provides superior RF integrity (-95 dB typical, 60% bonded foil cable). The quad-sealed connectors are made with high quality materials to ensure years of outdoor use. Installing them is, well, a snap when using the specialized DXE-SNS-CT1 tool.

DXE-SNS6-25 Snap-N-Seal Connectors for 6UF Cable, 25 Pieces **$29.99**
DXE-SNS1P6QS-10 Snap-N-Seal Connectors for RG6/6UQ Quad Shield Cable, 10 Pieces **$11.99**
DXE-SNS-CT1 Compression Tool for Snap-N-Seal Connectors **$39.99**
DXE-CPT-659 Coax Cable Stripper for RG-6 and RG-59 ..... **$29.99**

RG-6/U 75 Ω Quad-Shield Coaxial Cable Assemblies

We add a pair of high-quality weather sealed compression male F connectors to our RG-6/U cable to create pre-made cable assemblies for your shack. The assemblies are precision manufactured and machine-crimped to ensure that these are the lowest loss and most durable cable assemblies on the market. Need a custom assembly made? Visit DXEngineering.com, use our free online Custom Cable Builder and we'll create it for you.

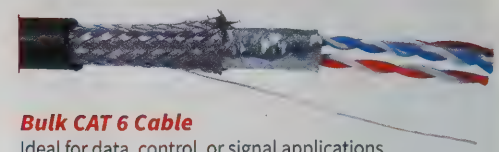
RG-6/U Coaxial Cable Assembly

DXE-RG6UQF003 3' **$19.99**
DXE-RG6UQF006 6' **$22.99**
DXE-RG6UQF012 12' **$25.99**
DXE-RG6UQF025 25' **$32.99**
DXE-RG6UQF050 50' **$39.99**
DXE-RG6UQF100 100' **$53.99**
DXE-RG6UQF150 150' **$61.99**
DXE-RG6UQF200 200' **$69.99**

RG-8X BNC Jumper Cable Assemblies

These male BNC jumper cables feature secure, crimped connectors and tube-shrink seals, which make them impervious to the elements. They are Hi-Pot tested. In addition to 50 Ω assemblies, there are 75 Ω assemblies available as well.

DXE-8XDB002 RG-8X BNC Jumper Cable, 2' **$17.49**
DXE-8XDB003 RG-8X BNC Jumper Cable, 3' **$18.49**
DXE-8XDB006 RG-8X BNC Jumper Cable, 6' **$20.49**
DXE-8XDB012 RG-8X BNC Jumper Cable, 12'; **$24.49**
DXE-8XDB025 RG-8X BNC Jumper Cable, 25'; **$29.49**
DXE-8XDB050 RG-8X BNC Jumper Cable, 50'; **$37.49**



Bulk CAT 6 Cable

Ideal for data, control, or signal applications, Times Microwave's CAT 6 features excellent electrical characteristics, plus a tinned copped shield for grounding and RFI prevention. The TCAT-6 is designed for indoor/outdoor use, while the TCAT-6-DB is well suited for outdoor, direct-bury installations. Connectors are sold separately.

Times Microwave also makes a handy grounding kit to properly install this cable. It features a pre-formed copper strap that terminates in a ground lug, and comes with hardware and insulating tape.

TMV-TCAT-6 CAT 6 Cable, Indoor/Outdoor ..... per foot **$0.96**
TMV-TCAT-6-DB CAT 6 Cable, Outdoor, Direct-Bury ..... per foot **$1.08**
TMV-TCAT-RJ-4525 RJ-45 Connectors, Pack of 25 ... **$58.99**
TMV-GK-TCAT CAT Cable Grounding Kit **$15.99**

RG-6/U 75 Ω Quad-Shield Coaxial Cable

We consider this RG-6/U the "Cadillac" of coaxial cable. With a velocity factor of 83%, it's perfect for Ham Radio, including your Beverage, magnetic loop, and active/passive receive antenna system. The cable also works quite well for broadcast TV and FM radio, CATV/CCTV and audio/video distribution applications.

Our RG-6/U coaxial cable has a gas-injected polyethylene foam dielectric, which makes the cable flexible and resistant to moisture. The 18 AWG center conductor is copper-clad steel for improved durability. As the name implies, it has two foil shields, plus two additional aluminum braids, creating four levels of RF shielding. The jacket is UV protected for outside runs.

The cable is available in 1,000' spools, by the foot for custom lengths and in premade assemblies. Visit DXEngineering.com for more specs, including attenuation figures.

DXE-6UQ-1000 RG-6/U 75 Ω Quad-Shield Cable, 1,000' Spool **$185.99**
DXE-6UQ-CTL RG-6/U 75 Ω Quad-Shield Cable, Per foot **$0.24**
DXE-SNS1P6QS-10 Snap-N-Seal Connectors for RG6/6UQ Quad Shield Cable, 10 Pieces **$11.99**

New!

RF SMA Coaxial Cable Assemblies

Amphenol RF SMA Coaxial Cable Assemblies make it easy to connect devices that have SMA female connectors. These high-quality 50 Ω, 36" SMA male, RG-316/U jumper cables may also be used with various SMA adapters for other RF device interconnections. Order a couple and have a spare on hand!

AML-135101-03 RF SMA RG-316, 50 Ω Jumper Cable **$30.99**

TIMES MICROWAVE SYSTEMS
An Amphenol Company

Coaxial Connectors

Though they're designed to work flawlessly with Times Microwave's own designs, these connectors also work well on various other types of coaxial cable. They are offered in three different body designs: a familiar knurled type, a hex head for an open-end wrench and a hybrid knurled/nut mix.

These are just a small sampling of the connectors available at DX Engineering. Find the entire selection at DXEngineering.com.

Part Number	Connector	Gender	Body	Fits Cable	Price
Crimp-On Center Pin Connector, Crimp Shield					
TMV-EZ-240-NF-X	Type N	Female	Knurled/Nut	LMR-240	$11.49
TMV-EZ-240-NMH-X	Type N	Male	Knurled/Nut	LMR-240	$12.69
TMV-EZ-240-SM-X	SMA	Male	Nut	LMR-240	$9.59
TMV-EZ-400-716MX	7-16 DIN	Male	Nut	LMR-400	$19.99
TMV-EZ-400-NF-X	Type N	Female	Knurled	LMR-400	$11.49
TMV-EZ-400-NMH-X	Type N	Male	Knurled/Nut	LMR-400	$13.69
TMV-EZ-400-NMK-D	Type N	Male	Knurled/Nut	LMR-400	$15.99
TMV-EZ-400-TM-X	TNC	Male	Knurled/Nut	LMR-400	$12.69
TMV-EZ-400-TMRAX	TNC	Male	Right Angle	LMR-400	$19.99
TMV-EZ-400-UM	PL-259	Male	Knurled	LMR-400	$19.49
TMV-EZ-600-716F	7-16 DIN	Female	Knurled	LMR-600	$29.99
TMV-EZ-600-NMC2D	Type N	Male	Knurled/Nut	LMR-600	$22.99
TMV-EZ-600-NMH-X	Type N	Male	Knurled/Nut	LMR-600	$19.99
TMV-EZ-600-UM	PL-259	Male	Knurled	LMR-600	$49.99
Solder-On Center Pin Connector, Crimp Shield					
TMV-TC-195-NMH-X	Type N	Male	Knurled/Nut	LMR-195	$13.19
TMV-TC-240-BMRAD	BNC	Male	Right-Angle	LMR-240	$17.19
TMV-TC-240-BM-X	BNC	Male	Knurled	LMR-240	$11.49
TMV-TC-240-MUHF	PL-259	Male	Mini-UHF	LMR-240	$4.19
TMV-TC-240-NMC	Type N	Male	Knurled	LMR-240	$17.19
TMV-TC-400-716MC	Type N	Male	Knurled	LMR-240	$49.99
TMV-TC-240-NMH-X	Type N	Male	Knurled/Nut	LMR-240	$13.99
TMV-TC-400-MUHF	PL-259	Male	Mini-UHF	LMR-400	$4.99
TMV-TC-400-NF-X	Type N	Female	Knurled	LMR-400	$17.19
TMV-TC-400-NMH-X	Type N	Male	Knurled/Nut	LMR-400	$13.99
TMV-SC-400-NM	Type N	Male	Knurled	LMR-400	$10.19
TMV-TC-400-NMC	Type N	Male	Knurled/Nut	LMR-400	$12.69

Missing Something?

We can't put everything we carry in our catalog. If you need a part from one of our manufacturers and you don't see it here, you'll probably find it at DXEngineering.com. If it's not listed online, call us, and we'll gladly special order it for you.

TIMES MICROWAVE SYSTEMS
An Amphenol Company

Weather Seal Boots

Made precisely for LMR-series coaxial cable and EZ crimp connectors, these boots are a simple way to keep moisture out of your connectors. They also provide a significant amount of strain relief for the cable. Times Microwave's Weather Seal Boots require no heat and can be hand assembled in the field. They are ISO 9001 certified and offer weather protection to IP-67 standards. Sold in packs of ten.

TMV-WSB-240	Weather Seal Boots, for LMR-240 and Similar Size Cable	$19.99
TMV-WSB-400	Weather Seal Boots, for LMR-400 and Similar Size Cable	$22.99
TMV-WSB-600	Weather Seal Boots, for LMR-600 and Similar Size Cable	$22.99

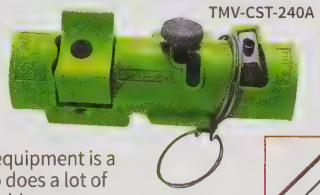
TIMES MICROWAVE SYSTEMS
An Amphenol Company

Coaxial Cable Crimping Tools

The final step of a connector installation is the proper electro-mechanical crimp contact. These tools are cable-size specific and optional die sets are available separately to expand the tools' versatility.

TMV-CT-240200195	Crimp Tool with Dies for LMR-100/195/200/240 Cable	$169.99
TMV-CT-400-300	Crimp Tool with Dies for LMR-300/400 Cable	$159.99
TMV-CT-U	Crimp Tool, Dies Sold Separately	$389.99
TMV-CT-600	Crimp Tool with Fixed Die for LMR-600 Cable	$159.99
TMV-Y1719	Crimp Dies for 3/8" LMR-400 Cable	$239.99
TMV-Y1720	Crimp Dies for TC/EZ-600 Style Connectors	$239.99

TIMES MICROWAVE SYSTEMS
An Amphenol Company



Coaxial Cable Prep Tools

Times Microwave offers prep tools tailored specifically to its cable. This professional-caliber equipment is a must for any Ham Operator who does a lot of LMR cable assembly. Improper cable prep can have a dramatic affect on station performance, so ensure yours is correct. The CST-240A requires a separate deburring tool, while the 400/600 have built-in deburring capability.

DX Engineering has an enormous array of cable prep tools. Find them all at DXEngineering.com.

TMV-CST-240A	Coaxial Cable Prep Tool for LMR-240 Cable	$109.99
TMV-CST-400	Coaxial Cable Prep Tool for LMR-400 Cable	$111.99
TMV-CST-600	Coaxial Cable Prep Tool for LMR-600 Cable	$119.99
TMV-RB-CST	Replacement Blades for CST Series Prep Tools	$49.99

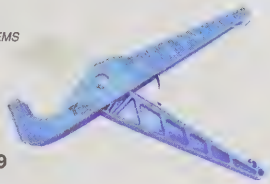
Cable Hoisting Grips

We've all done it—tied rope directly to the coax to pull it up to an installation. Problem is, that method can crush, deform or break the cable. These grips will safely lift your cable up a tower, to your roof or through a ceiling.

TMV-HG-400T	Cable Hoisting Grip, for LMR-400/0.4" OD Jacket Cable	$18.99
TMV-HG-600T	Cable Hoisting Grip, for LMR-600/0.6" OD Jacket Cable	$27.99

Cable Cutting Tool

TIMES MICROWAVE SYSTEMS
An Amphenol Company



Clean, square cuts on your cable are essential for a clean connector installation. This cutter will work with virtually any cable with a 3/8" to 1/2" OD and delivers that critical first step of cable prep.

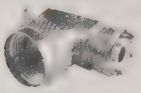
TMV-CCT-02	Cable Cutting Tool	$47.99

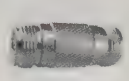
Check out our YouTube channel for in-depth tech tips and product demos!

DXE-532-2

DXE-1012-1-2

DXE-1134-2


DXE-533-2


DXE-1013-1-2

DXE-1144-2

DXE-534

DXE-1035-2

DXE-1136-2

DXE-06-0102-2

DXE-536-4

DXE-06-0101-2

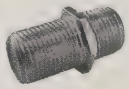
DXE-1037-1-2

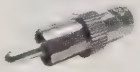
DXE-538-2

DXE-1155-2

DXE-1023-2

DXE-1011-1


DXE-1477-6


DXE-1140-2

DXE-1038-1-2

DX ENGINEERING

Coaxial Connector Adapters

DX Engineering has a selection of adapters for connecting cables with different type connectors.

DX Engineering has designed and built no-compromise adapters to ensure your station isn't hampered with signal loss. Find more online at DXEngineering.com.

Part Number	Adapter Type	Quantity	Price
DXE-532-2	UHF Right Angle	2	$15.99
DXE-533-2	UHF Tee, 1 PL-259, 2 SO-239	2	$18.59
DXE-534	UHF Tee, Triple SO-239	1	$9.19
DXE-536-4	UHF Female Barrel	4	$12.99
DXE-538-2	UHF Double Male	2	$10.99
DXE-1011-1	N Tee, All Female	1	$15.99
DXE-1012-1-2	N Right Angle	2	$26.99
DXE-1013-1-2	N Double Female Barrel	2	$16.99
DXE-1035-1-2	N Male to UHF Female	2	$15.99
DXE-1136-2	BNC Male to UHF Female	2	$11.99
DXE-06-0100-2	F Female to UHF Male	2	$6.29
DXE-06-0102-2	N Female to UHF Male	2	$12.99
DXE-1037-1-2	N Male to BNC Female	2	$15.99
DXE-1023-2	N Double Female Bulkhead	2	$17.99
DXE-1134-2	BNC Double Female Barrel	2	$7.99
DXE-1140-2	BNC Female to RCA Male	2	$10.99
DXE-1144-2	BNC Female to F Male	2	$11.99
DXE-06-0101-2	BNC Female to UHF Male	2	$11.99
DXE-1155-2	BNC Male to F Female	2	$7.79
DXE-1477-6	F Double Female Bulkhead	6	$5.79
DXE-1038-1-2	N Female to BNC Male	2	$19.99

DIAMOND ANTENNA

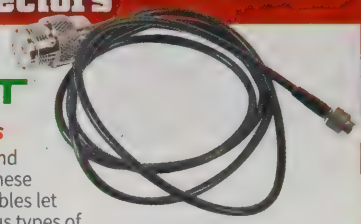
Antenna Adapter Cable

Make quick, in-shack hookups easier. This 4 foot cable has a male SMA connector on one end and a SO-239 connector on the other. This cable is perfect for hooking up a scanner or your HT.

DMN-C104SMA Adapter Cable.....$16.99

COMET

Adapter Cables



Get your gear up and running quickly. These RG-188 adapter cables let you connect various types of equipment and antennas without significant insertion loss. Find more adapters at DXEngineering.com.

Part Number	Connector 1	Connector 2	Length	Price
CMA-HB-05	SMA Male	BNC Female	18"	$14.99
CMA-HM-05	BNC Male	SO-239	18"	$14.99
CMA-HM-05JSJ	SMA Female	SO-239	18"	$15.99
CMA-HS-05	SMA Male	SO-239	18"	$14.99
CMA-HS-10	SMA Male	SO-239	39"	$17.99

Amphenol RF

Chassis Mount Coaxial Connector Kits

Make sure your connections are sturdy and reliable. Amphenol RF makes kits that combine the connector, plus the corresponding washers, nuts and bolts you need to complete a proper installation.

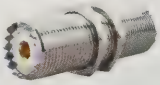
AML-83-798-2-KIT SO-239 Chassis Mount Kit, PTFE Dielectric, Pack of 2.....$25.97

AML-83-1R-2-KIT SO-239 Chassis Mount Kit, PBT Dielectric, Pack of 2.....$17.97

DX ENGINEERING

Female Bulkhead Connectors

DXE-363-SST


DXE-363-SST-NI

These high-quality bulkhead connectors use silver plated outer and inner conductors and a PTFE insulator. The connectors have very low-loss and high electrical breakdown. They come with two nuts to secure the connector to our Radial Plate or other flat surface. The connectors ensure the radial ground system, the antenna ground and the feedline shield are common. They can also be used for joining two pieces of coax with male PL-259s together.

DXE-363-SST Dual SO-239 Bulkhead Connector with SO-239 Socket.....$7.69

DXE-363-SST-NI Bulkhead-style, SO-239 to SO-239, Gold Center.....$5.49

DXE-T001 Installation Tool Kit for SO-239/ Bulkhead Connectors.....$19.99

DXE-SO239D-1

DXE-SO239BKT-1

Connectors and Mounting Solutions

If you're building your own gear or do repair work, then you've probably had to install a lot of SO-239 connectors. DX Engineering carries several Amphenol and non-Amphenol brand SO-239 chassis mount options. The connectors come with the correct bolts, flat washers, star washers and Nylok locking nuts. These are a perfect fit for the DX Engineering Radial Plate.

The DX Engineering SO-239 Mounting Bracket lets you install an SO-239 practically anywhere. It's a great match for the DXE-S0239D-1 connector. The connector also works well in any hole-mount/chassis-mount location.

The DX Engineering Installation Tool Kit is an excellent way to speed up jobs and reduce hand fatigue.

DXE-112-KIT SO-239 with Silver Plating and PTFE Insulation.....$9.99

DXF-VC-0612 Black Vinyl Cap for SO-239, Pack of 20.....$5.79

DXE-SO239BKT-1 SO-239 Mounting Bracket.....$5.99

DXE-SO239D-1 SO-239 Chassis Mt. Connector; $5.99

DX ENGINEERING

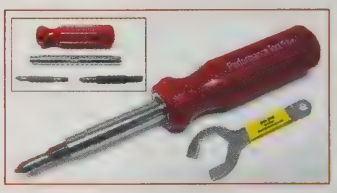
Silver Plated Female SecureMount™ Bulkhead Connector Kit

SECUREMOUNT

From broken continuity to an impedance mismatch, a faulty bulkhead connector can introduce several problems into your station. To solve these issues, DX Engineering has designed a 50 Ω bulkhead SO-239 connector that is leaps-and-bounds better than ordinary varieties. For starters, it's silver plated to promote excellent RF continuity. Plus, this connector has a solid PTFE dielectric at its midpoint, which helps maintain consistent impedance and connectivity. It handles frequencies from DC to 500 MHz.

The connector is an excellent complement to DX Engineering's patented Radial Plate, and many other bulkhead-mount applications. Sold as a kit, the connector includes a set of four stainless steel bolts, nylon locking nuts, star washers and flat washers.

DXE-UHF-FDFB-KIT SecureMount Bulkhead SO-239 Connector Kit.....$15.48



SO-239 Connector Installation Tool Kit

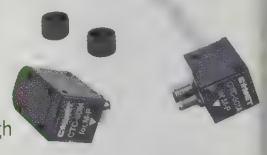
This versatile tool kit will help you install chassis or bulkhead mount SO-239 coax connectors. It includes a special stainless steel wrench. One end has a 3/4 inch semi-box wrench with a pass-through for coaxial cable—perfect for tightening the large nut used to mount bulkhead connectors. The other end is a 3/16 inch box wrench for tightening mounting nuts with SO-239 hardware. Also included is a multi-purpose 6-in-1 screwdriver/nutdriver tool with the following bits:

- 1/4 inch nutdriver
- 5/16 inch nutdriver
- 1/4 inch flathead
- #1 Phillips
- 3/16 inch flathead
- #2 Phillips

DXE-T001 SO-239 Connector Installation Tool Kit.....$19.99

COMET

Window Feed-Thru Jumper



This 16 inch long feed-through lets you slip a flexible cable underneath your window sash. It handles 100 W (PEP), has an SWR under 1.3:1 (below 500 MHz) and uses two SO-239 connectors.

With a nominal loss of .5 dB up to 500 MHz, it's a solution that will please everyone.

CMA-CTC-50M Feed-Thru Jumper.....$54.99

DIAMOND ANTENNA

Through Window/ Door Cable Set

Pass this set through the narrow openings of a window, door or even a vent. This 20 inch cable has an SO-239 connector at each end to make installation easy. It can handle up to 150 watts with a VSWR less than 1.2:1 at up to 500 MHz and an insertion loss lower than 1.7 dB.

DMN-MGC50 Through Window/Door Cable Set.....$53.99

The DX Engineering Exclusive
CUSTOM CABLE BUILDER

You decide which cable you want, how long you want it and which connectors you want installed. Our highly trained technical staff will build your cable assembly, and it will endure rigorous hi-pot testing before it leaves our facility.

Mix-and-matching connectors is OK too. For instance, you can put a PL-259 on one cable end and a BNC male on the other. You can also use the Custom Cable Builder to create copper braid assemblies for your specialized grounding applications.

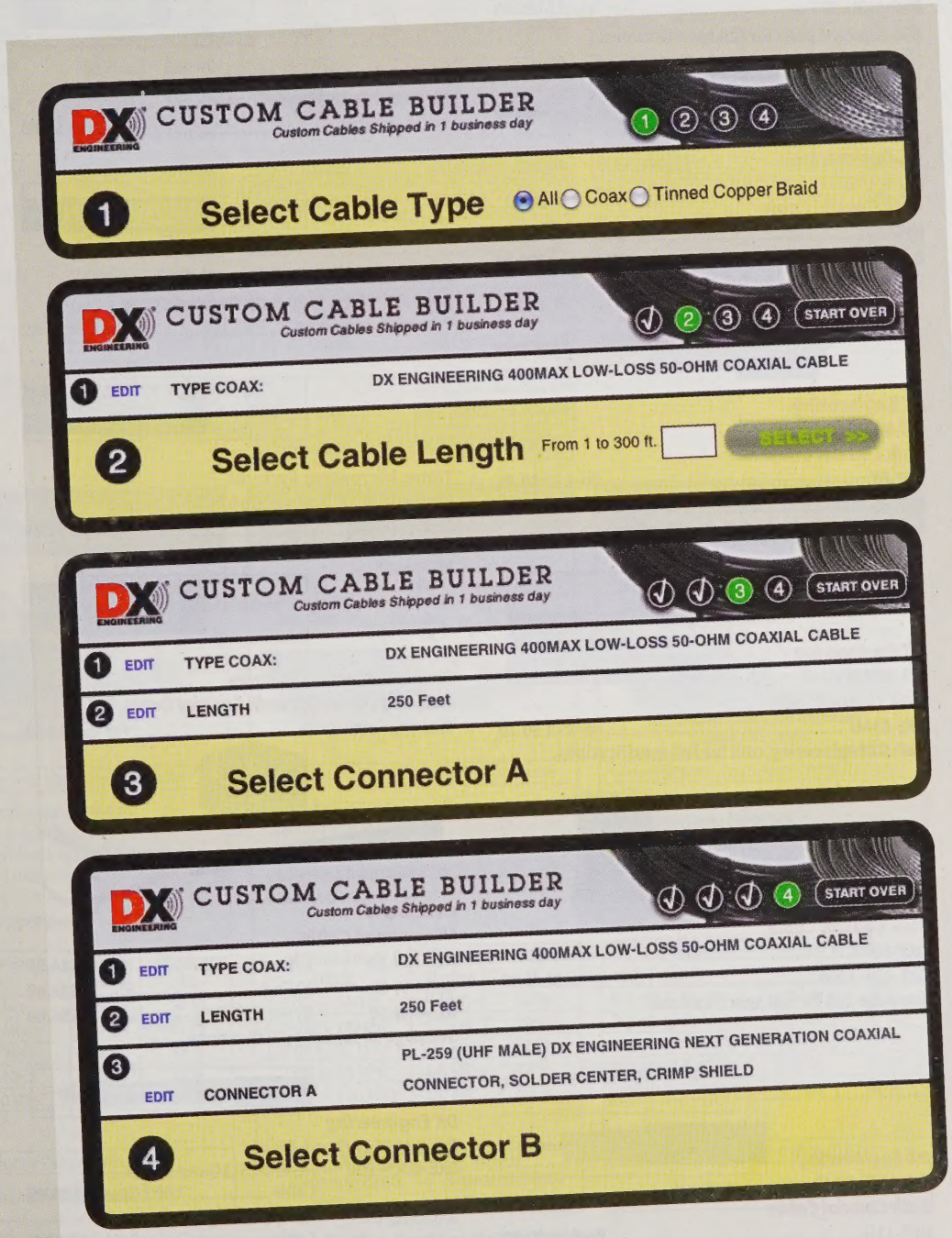
How It Works:

1) Select the cable you want to use.

2) Enter the desired length of your new assembly.

3) Choose the connectors you want on each end.

4) Click "Add to Cart" and complete your order.



We'll build your Custom Cable and ship it to you quickly.

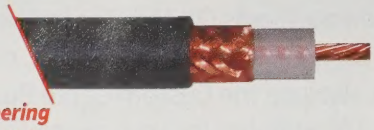
It's easy, straightforward and intuitive.

DX ENGINEERING®

Visit DXEngineering.com to start building New Custom Cables.

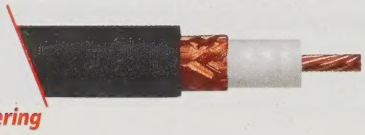
DX Engineering Low-Loss 50 Ω Bulk Coaxial Cable

DXE-400MAX ..... Per foot **$0.95**
DXE-400MAX-500 ..... 500' Spool **$399.99**
See adjacent page for full specifications.



DX Engineering RG-213/U 50 Ω Bulk Coaxial Cable

DXE-213U ..... Per foot **$0.89**
DXE-213U-500 ..... 500' Spool **$389.99**
See adjacent page for full specifications.



DX Engineering RG-8/U 50 Ω Bulk Coaxial Cable

DXE-8U ..... Per foot **$0.84**
DXE-8U-500 ..... 500' Spool **$369.99**
See adjacent page for full specifications.

DX Engineering RG-8X 50 Ω Bulk Coaxial Cable

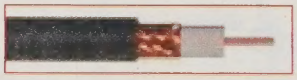
DXE-8X ..... Per foot **$0.38**
DXE-8X-1000 ..... 1,000' Spool **$299.99**
See adjacent page for full specifications.

DX Engineering RG-58A/U 52 Ω Bulk Coaxial Cable

DXE-58AU ..... Per foot **$0.29**
Visit DXEngineering.com for full specifications.

DX Engineering F6 75 Ω Bulk Coaxial Cable

DXE-6UF-CTL ..... Per foot **$0.19**
DXE-6UF-1000 ..... 1,000' Spool **$149.99**
See page 126 for full specifications.



DX Engineering RG-11/U 75 Ω Bulk Coaxial Cable

DXE-11U ..... Per foot **$0.69**
Visit DXEngineering.com for full specifications.

Times Microwave Systems LMR-195 Bulk Coaxial Cable

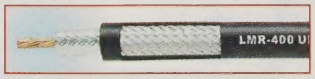
TMV-LMR-195 ..... Per foot **$0.61**

Times Microwave Systems LMR-240 Bulk Coaxial Cable

TMV-LMR-240 ..... Per foot **$0.79**

Times Microwave Systems LMR-400 Bulk Coaxial Cable

TMV-LMR-400 ..... Per foot **$1.09**



Times Microwave Systems LMR-400 Ultra Flex Bulk Coaxial Cable

TMV-LMR-400ULTRA ..... Per foot **$1.65**

Times Microwave Systems LMR-600 Bulk Coaxial Cable

TMV-LMR-600 ..... Per foot **$1.89**

Times Microwave Systems LMR-600 Ultra Flex Bulk Coaxial Cable

TMV-LMR-600ULTRA ..... Per foot **$3.19**

Heil Sound Microphone Cable

HLS-HW-10	10 Feet	**$14.95**
HLS-HW-20	20 Feet	**$23.00**
HLS-HW-50	50 Feet	**$56.00**

See page 30 for full specifications.

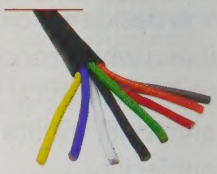
DX Engineering RG-6/U 75 Ω Quad-Shield

DXE-6UQ-1000	RG-6/U 75 Ω Quad-Shield Cable	1,000' Spool **$185.99**
DXE-6UQ-CTL	RG-6/U 75 Ω Quad-Shield Cable	Per foot **$0.24**

See page 126 for full specifications.

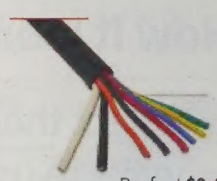
DX Engineering Heavy Duty Rotator Control Cable

DXE-CW1812OR ..... Per foot **$1.15**



DX Engineering Heavy-Duty Control Cable

DXE-CW8-HD ..... Per foot **$0.89**
DXE-CW8-HD-1000 ..... 1,000' Spool **$850.99**



DX Engineering Control Cable

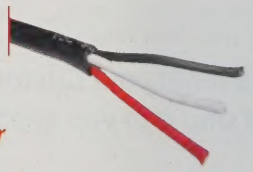
DXE-CW8 ..... Per foot **$0.49**

DX Engineering Shielded CAT5e Control Cable

DXE-CW9 ..... Per foot **$0.32**
DXE-CW9-1K ..... 1,000' Spool **$229.99**

DX Engineering Shielded Control Cable

DXE-CW9S ..... Per foot **$0.38**



COMTEK 3 Count Conductor Control Cable

COM-CW3 ..... Per foot **$0.25**
COM-CW3-1000 ..... 1,000' Spool **$197.99**

COMTEK 4 Count Conductor Control Cable

COM-CW4 ..... Per foot **$0.45**
COM-CW4-500 ..... 500' Spool **$165.99**

High Performance Coaxial Cable and Cable Assemblies

DX ENGINEERING

DX Engineering Coaxial Cables are made to our strict specifications to ensure that your bulk cable or cable assembly purchase will perform beyond expectations, offering the greatest and longest lasting value for your radio installation.
DX Engineering 400MAX, 8U, 8X and 11U coaxial cables feature ultra-low loss gas-injected foam cable dielectrics while 213U and 58AU cables feature rugged and flexible solid dielectrics to handle the elevated SWR of some high-performance HF antenna installations. All DX Engineering cables have excellent weather resistant jackets and our 50-ohm coaxial cables feature stranded copper center conductors for the best connections and long-term flexibility.

Now installed on all of DX Engineering Coaxial Cable Assemblies with PL-259s, our revolutionary Next Generation connectors combine the best qualities of solder and crimp technologies for unparalleled reliability and the lowest loss. These 50-ohm coaxial cable assemblies feature hand-soldered center pins, machine crimped shields and are finished with weather-sealed shrink tube so they are highly resistant to moisture and wear.

We offer an extensive line of coaxial cables sold in bulk, by the foot and by the roll. Cable preparation tools and different types of coaxial connectors are available here. See our new Custom Cable Builder system for ordering custom cable assemblies with thousands of cable types, lengths and connector combinations that will satisfy nearly every RF application. Visit DXEngineering.com to see our comprehensive bulk cable and coaxial cable assembly offerings.

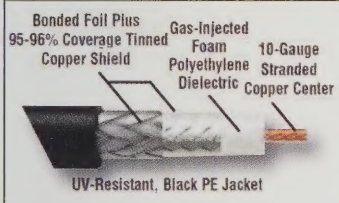
DXE-400MAX Low-Loss		
DXE-400MAXDX003	3 Feet	**$21.49**
DXE-400MAXDX006	6 Feet	**$24.49**
DXE-400MAXDX009	9 Feet	**$26.49**
DXE-400MAXDX012	12 Feet	**$27.49**
DXE-400MAXDX018	18 Feet	**$31.49**
DXE-400MAXDX025	25 Feet	**$44.49**
DXE-400MAXDX050	50 Feet	**$69.49**
DXE-400MAXDX075	75 Feet	**$97.49**
DXE-400MAXDX100	100 Feet	**$119.49**
DXE-400MAXDX125	125 Feet	**$149.49**
DXE-400MAXDX150	150 Feet	**$179.49**
DXE-400MAXDX175	175 Feet	**$204.49**
DXE-400MAXDX200	200 Feet	**$229.49**
DXE-400MAX	Per Foot	**$0.95**
DXE-400MAX-500	500' Spool	**$399.99**
DXE-400MAX-1000	1,000' Spool	**$795.99**

DXE-213U MIL-Spec		
DXE-213UDX003	3 Feet	**$20.49**
DXE-213UDX006	6 Feet	**$22.49**
DXE-213UDX012	12 Feet	**$26.49**
DXE-213UDX018	18 Feet	**$29.49**
DXE-213UDX025	25 Feet	**$43.49**
DXE-213UDX050	50 Feet	**$68.49**
DXE-213UDX075	75 Feet	**$96.49**
DXE-213UDX100	100 Feet	**$118.49**
DXE-213UDX125	125 Feet	**$148.49**
DXE-213UDX150	150 Feet	**$178.49**
DXE-213UDX175	175 Feet	**$203.49**
DXE-213UDX200	200 Feet	**$228.49**
DXE-213U	Per Foot	**$0.89**
DXE-213U-500	500' Spool	**$389.99**
DXE-213U-1000	1,000' Spool	**$774.99**

DXE-8U Low-Loss Foam Dielectric		
DXE-8UDX002	2 Feet	**$19.99**
DXE-8UDX003	3 Feet	**$20.99**
DXE-8UDX006	6 Feet	**$23.99**
DXE-8UDX009	9 Feet	**$25.99**
DXE-8UDX012	12 Feet	**$26.99**
DXE-8UDX018	18 Feet	**$30.99**
DXE-8UDX025	25 Feet	**$43.99**
DXE-8UDX050	50 Feet	**$68.99**
DXE-8UDX075	75 Feet	**$96.99**
DXE-8UDX100	100 Feet	**$118.99**
DXE-8UDX125	125 Feet	**$148.99**
DXE-8UDX150	150 Feet	**$178.99**
DXE-8UDX175	175 Feet	**$203.99**
DXE-8UDX200	200 Feet	**$228.99**
DXE-8U	Per Foot	**$0.84**
DXE-8U-500	500' Spool	**$369.99**
DXE-8U-1000	1,000' Spool	**$764.99**

DXE-8X Low-Loss Foam Dielectric		
DXE-8XDX1-5	1.5 Feet	**$16.49**
DXE-8XDX002	2 Feet	**$17.49**
DXE-8XDX003	3 Feet	**$18.49**
DXE-8XDX006	6 Feet	**$19.49**
DXE-8XDX012	12 Feet	**$24.49**
DXE-8XDX015	15 Feet	**$25.49**
DXE-8XDX018	18 Feet	**$26.49**
DXE-8XDX025	25 Feet	**$29.49**
DXE-8XDX050	50 Feet	**$37.49**
DXE-8XDX075	75 Feet	**$44.49**
DXE-8XDX100	100 Feet	**$54.49**
DXE-8XDX150	150 Feet	**$79.49**
DXE-8X	Per Foot	**$0.38**
DXE-8X-1000	1,000' Spool	**$299.99**

DXE-400MAX Low-Loss Cable



Gas-Injected Foam Won't Absorb Water

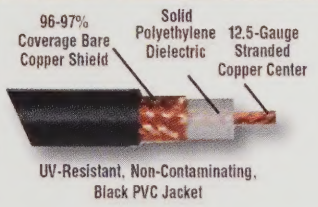
- Low-loss, gas-injected foam polyethylene dielectric bonded foil covered by a braided copper shield
- .405" low-density polyethylene jacket is UV resistant, ideal for outdoor use
- Direct-bury

Attenuation/ 100 ft.	Power Rating	Efficiency %
0.3 dB @ 5 MHz	6.9 kW	93 %
0.5 dB @ 10 MHz	4.8 kW	90 %
0.8 dB @ 30 MHz	2.8 kW	83 %
1.1 dB @ 50 MHz	2.1 kW	79 %
1.8 dB @ 150 MHz	1.2 kW	65 %
3.3 dB @ 450 MHz	0.7 kW	47 %

Velocity Factor: 84% (0.84)

Minimum Bend Radius: 6" Repeated Bends, 2.5" Fixed Install

DXE-213U MIL-Spec Cable



Solid Dielectric Won't Absorb Water

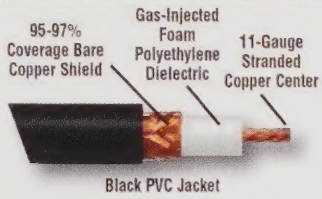
- Solid Polyethylene Dielectric
- .405" Type II-A jacket is non-contaminating and UV-resistant, suitable for outdoor use
- Direct-bury
- Braided copper shield

Attenuation/ 100 ft.	Power Rating	Efficiency %
0.4 dB @ 5 MHz	4.9 kW	90 %
0.6 dB @ 10 MHz	3.4 kW	87 %
1.0 dB @ 30 MHz	2.0 kW	79 %
1.3 dB @ 50 MHz	1.5 kW	73 %
2.4 dB @ 150 MHz	0.9 kW	57 %

Velocity Factor: 66% (0.66)

Minimum Bend Radius: 5"

DXE-8U Low-Loss Foam Dielectric Cable



Gas-Injected Foam Won't Absorb Water

- Low-loss, gas-injected foam polyethylene dielectric
- .405" high-flex PVC jacket
- Low-loss foam dielectric
- Braided copper shield

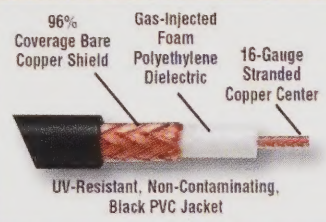
Attenuation/ 100 ft.	Power Rating	Efficiency %
0.3 dB @ 5 MHz	5.4 kW	93 %
0.5 dB @ 10 MHz	4.1 kW	90 %
0.9 dB @ 30 MHz	2.2 kW	81 %
1.2 dB @ 50 MHz	1.8 kW	77 %
2.2 dB @ 150 MHz	1.0 kW	60 %

Velocity Factor: 81% (0.81)

Minimum Bend Radius: 6" Repeated Bends, 2.5" Fixed Install

DXE-8X Low-Loss Foam Dielectric Cable

Known as RG-8X or Mini-8



Gas-Injected Foam Won't Absorb Water

- Low-loss, gas-injected foam polyethylene dielectric
- Very flexible; ideal for short, in-shack jumper cables
- .242" Type II jacket, non-contaminating and UV-resistant, for outdoor use
- Direct-bury

Attenuation/ 100 ft.	Power Rating	Efficiency %
0.6 dB @ 5 MHz	3.0 kW	86 %
0.9 dB @ 10 MHz	2.2 kW	81 %
1.4 dB @ 30 MHz	1.2 kW	69 %
2.0 dB @ 50 MHz	0.9 kW	62 %
3.8 dB @ 150 MHz	0.4 kW	42 %

Velocity Factor: 82% (0.82)

Minimum Bend Radius: 2.4"

Need a custom cable assembly? Check out the Online Custom Cable Builder.

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Universal Towers was opened in 1969 as a family owned and operated business. Today, Amateur Radio operators everywhere take advantage of the company's finely constructed lightweight freestanding aluminum towers that deliver reliable performance and outstanding appearance, with no guy wires to get in the way. Made in the USA, Universal's standard and heavy-duty towers, from 30 to 100 feet, are easy to assemble and backed by an experienced team of engineers, technicians and support specialists focused on helping Hams get the results they want. DX Engineering also carries the full lineup of Universal tower accessories.

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